

David T. Crowther
Curriculum Vita
Updated April 2012

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Background:

Dr. David T Crowther is a Professor of Science Education at the University of Nevada, Reno. David has 5 years of experience teaching at the elementary / middle level as well as summer teaching at the 8 - 12th grade level in Biology. Dr. Crowther has nineteen years of teaching experience at the University level, sixteen of which have been at the University of Nevada, Reno. Previously, he taught and received his Ph.D. in Science Education from the University of Nebraska - Lincoln. Both at UNR and UNL, Dr. Crowther has taught science methods to undergraduates, general biology for education majors, and a number of different graduate courses in curriculum, science education and research. Dr. Crowther was the runner up for the university wide Donald F. Tibbetts teaching award in 2007 and received the Outstanding Undergraduate Mentor Award from the College of Education at UNR in 2009. Dr. Crowther has brought in over 3 million dollars in grants to the university (UNR) and 5.48 million in his teaching career. Dr. Crowther is the co-author / editor of Science for English Language Learners from NSTA Press, Has edited and written a portion of the Gateway to Science textbook series from Thomson Press and he is currently consulting on a children's science book series dealing with science content for ELL from Heinemann - Raintree. He has written 11 chapters in science education texts and has published 42 articles that are both research based and practical for science education in scholarly journals and conference proceedings. Dr. Crowther has presented workshops and presentations in 42 states involving science education and professional development including a one full day workshop with Bill Nye the Science Guy at the National Science Teachers Association (NSTA) 2001 national meeting. Dave Crowther is the past president of the Council of Elementary Science International (CESI) and former Council member for the National Science Teachers Association (NSTA). Until recently, Dr Crowther was an editor of two professional journals in science education; CESI Science which is the journal for the Council for Elementary Science International and associate editor of the Electronic Journal of Science Education (EJSE) which is the longest running and first online journal of its kind. Dr. Crowther is on the advisory board for Science & Children, one of the widest read science education journals. Dr. Crowther was recently invited (Nov 2010) to Shanghai, China as one of twenty five science educators from across the United States to participate on a Science Education Delegation to exchange science teaching ideas between the two countries. Dr. Crowther is currently involved nationally and serves on the National Science Teachers Association (NSTA) College Science Teaching Advisory Committee. Additionally, due to the participation of the China delegation has been assigned as part of a task force for International Outreach and Idea exchanges between the US and other countries for the National Science Teachers Association (NSTA). At UNR, Dr. Crowther serves on the Elementary Education faculty and was program coordinator of that program from 2009 – 2011. Dr. Crowther currently serves on the board for Bailey Charter Elementary School in Reno, NV. Dr. Crowther's current research interests involve teaching science through inquiry to develop English language

acquisition for English Language Learners (ELL), Inquiry content instruction within general Biology at the University level, and general methods of inquiry science teaching at the graduate and undergraduate level.

Educational Preparation:

- 1996 **Ph.D.:** University of Nebraska-Lincoln.
Major: Administration, Curriculum, and Instruction (Teaching, Curriculum, and Learning/ Science Education).
Dissertation: Science Experiences and Attitudes of Elementary Education Majors as they Experience Biology 295.
Minor: Biological Sciences
Minor Research Area: IGF Binding Proteins in Calu 6 Lung Cancer Cells.
- 1992 **M.Ed.,** Brigham Young University,
Major: Curriculum and Instruction.
Thesis: Metacognition: The Effects of Strategy Instruction on Reflective Thinking and Pedagogical Skills in Preservice Teachers.
Field Experience in Supervision and Teacher Preparation.
- 1989 **B.S.,** Brigham Young University, Elementary Education.

Additional Professional Training:

- 2009 Nevada K-8 Teaching License; General Science Endorsement.
 1992 Trained presenter in the Johnson & Johnson model of Cooperative Learning. I have trained numerous faculties and staff in Cooperative Learning strategies.

Employment:**July 2008 – Present:**

Professor. Primary teaching responsibilities include Elementary Science Methods / Practicum and Biology 110 (Biology for Education Majors). Other teaching responsibilities include instruction and supervision of field experiences / practicum, and various undergraduate and graduate level research and methodology courses. Principal Investigator for the *Nevada Earth / Space Science Initiative (NESSI) Grant*. 2007 - 2009.

July 2001 – July 2008:

Associate Professor in the College of Education, University of Nevada-Reno. Primary teaching responsibilities include Elementary Science Methods / Practicum and Biology 110 (Biology for Education Majors). Other teaching responsibilities include instruction and supervision of field experiences / practicum, and various undergraduate and graduate level research and methodology courses.

July 1996 to July 2001

Assistant Professor in the College of Education, University of Nevada-Reno. Primary teaching responsibilities include Elementary Science Methods / Practicum. Other teaching responsibilities include instruction and supervision of field experiences / practicum, and various undergraduate and graduate level research and methodology courses.

August 1993 - August 1996

Instructor at the University of Nebraska-Lincoln. Teaching responsibilities included:
 Science Methods for Elementary Education Majors, C&I 315 (4 semesters) Including practicum. (1 semester).
 Math methods for Elementary Education Majors, C&I 308 Including practicum. (1 semester).
 Biology for elementary education majors. (Taught and offered in the Dept. of Life Sciences) BioSci 295. (5 semesters).
 Chemistry for elementary education Majors (Taught and offered through Biology and Chemistry). BioSci 295A. (1 semester).
 Supervision of early field experiences and seminars. C&I 197 (3 semesters).
 Supervision of student teachers C&I 403 (1 semester).
 Biology for Practicing Elementary Teachers, Summer

Workshop. C&I 893T. (2 summers). Operation Chemistry; for teachers of grades 4-9. Sponsored by the American Chemical Society and local Eisenhower funds (3 summers).

July 1992 - July 1993.

6th grade teacher at Sunset View Elementary School. Contract included a 249 day teaching load with an extended rainbow classroom at a year round school. I was also the research coordinator and headed the curriculum improvement team for the school as well as being the Science Specialist.

Sept. 1991 - Aug. 1992.

Graduate research/teaching assistant at Brigham Young University in the Elementary Education Department. Duties included teaching and supervision of elementary education students in field experiences.

July 1989 - Aug 1991.

4th and 5th grade teacher, respectively, at Sunset View Elementary School. During this time I also served as the school Science Specialist and coordinated science curriculum revision and the annual science fairs.

Feb. 1989 - June 1989.

Permanent substitute in the 3rd grade at Sunset View Elementary School (a year round school).

Dec. 1987 - Jan. 1989.

Manager of the Instructional Materials Lab in the Elementary Education Department at Brigham Young University. Duties included instructing students and related responsibilities associated with the management of a lab.

Scholarly Work

Publications in Full Peer Reviewed Journals

Crowther, D, Tibbs, E., Wallstrum, R., Storke, E., & Leonis, B. (2011). Academic vocabulary instruction within inquiry science: The blended / tiered approach. *Accelerate* 3 (4) 17-23. Available online at: http://www.ncele.gwu.edu/files/uploads/17/Accelerate_3_4.pdf

Brock, R. & Crowther, D. (2009). Lesson Learned from an After School Science Club: Taking the Informal to a Formal Science Experience. *CESI Science* V. 40 (01). Summer / Fall. Available online at: CESIScience.org

Crowther, D. (2008). General Biology Using Inquiry for Education Majors. *Academic Exchange Quarterly* 12 (2) pp 67-74 (Summer).

Texley, J., Bricker, P., Barman, C., Carlisle, P., Crowther, D., Curton, H., Knoell, D., Rearden, K., Sharp, L., & Wiig, D. (2008). Outstanding science trade books for students K-12. *Science and Children* 45 (7). pp.43-51.

Crowther, D, Barman, C., Bricker, P., Carlisle, P., Clements, C., Curtin, H., McClelland, C., Pratt, N., & Sharp, L. (2007). Outstanding science trade books for students K-12. *Science and Children* 44 (6) pp 41 – 48.

Pratt, N., Barman, C., Clements, C., Crowther, D., Curton, H., Gillam, D., McLelland, C., Royce, C., & Shackelford, B. (2006). Outstanding science trade books for students K-12. *Science and Children* 43 (6) pp 39 – 47.

- Crowther, D. (2006). Strategies for teaching English language learners in the science classroom. *Shop Talk* (2) 2. Professional Development Magazine for the Regional Professional Development Program (Nevada). Spring. Pp.18.
- Crowther, D.; Lederman, N. & Lederman, J. (2005). Understanding the true meaning of nature of science. *Science & Children* 43 (2). Pp. 50 – 52.
- Crowther, D.; Barman, C.; Clements, C.; Gillam, D.; McLelland, C.; Olsen, L.; Pratt, N.; Roepke, c.; Giddings, L.; Shackleford, b.; Weiss, V.; _ & Wojnowski, D. (2005). Outstanding science trade books for students K-12. *Science & Children* 42 (6). Pp. 35 –42.
- Crowther, D.; Veneable, C., & Barman, C. (2005). The making of “The List”: Understanding the selection process for the outstanding science trade book list. *Science & Children* 42 (6). Pp. 35 – 42.
- Crowther D. & Cannon, J. (2004). Strategy makeover: From “Know,” “Want,” “Learned” to “Think,” “How,” “Conclude,” A popular reading strategy gets a science makeover. *Science and Children* 42 (1). Pp. 42 – 44.
- Cooney, T., Barr, B., Bolton, G., Crowther, D., Gillam, D., Herminghaus, T., Olsen, L., Roepecke, C., Giddings, L., Shackleford, B., Weiss, V., & Wojnowski, D. (2004). Outstanding science trade books for students K-12. *Science & Children* 41 (6). Pp. 35 – 42.
- Crowther, D. T. (2003) Harry potter and the dichotomous key. *Science and Children*. Vol. (41) 2. (October).
- Crowther, D. (2003) Polymers, A piercing experience. *CESI Science*. Vol 36 (2).
- Crowther, D. & Willden, J. (2001). There are ten minutes left in class, what can I do? GAK!! *CESI Science*. 34 (2) 30-31.
- Robinson, M. & Crowther, D.T. (2001). A comparison of environmental science literacy among science education majors and biology and chemistry science majors. *American Biology Teacher*.
- Crowther, David T. (1999). Cooperating with constructivism. *Journal of College Science Teaching*. 29(1). pp. 17-23.
- Crowther, D. T. (1999). Applications of research and model inquiry lessons: Paper towel testing and the learning cycle lesson design. *Electronic Journal of Science Education*. Vol 3 (3). March.
- Crowther, D. T. (1998). The Web of life. *CESI Science*. Spring Vol 30 (2).
- Crowther, D. T., & Loftin, L. (1998). Chemical reaction chambers. *CESI Science*. Spring Vol 30 (2).
- Crowther, D. T., Landon, J., & Jacobitz, K. (1997) Protein potluck, doing tasteful science. *The American Biology Teacher*. V.59 N.2. February. pp 108-112
- Crowther, D. T. & Ross, R. (1997) Oobleck and the mystery powders. *CESI Science*. Winter Vol 29 (3). p.16-17
- Crowther, D. T. (1997) Water, water everywhere. *CESI Science*. Winter Vol 29 (4).

Crowther, D. T., Jacobitz, K., & Landon, J. (1996) Sweet classification. *CESI Science*. Fall Vol 29 (2). p.16-18

Publications in Data Bases, Proceedings, etc. (Peer Reviewed):

Crowther, D. (2012). Development of the blended / tiered approach to scaffolding academic language for English language learners. A presentation at the International meeting for the National Association for Research in Science Teaching (NARST). Indianapolis, IN. (March) http://www.narst.org/annualconference/2012_full_abstracts.pdf

Leonis, B., Crowther, D. & Storke, E. (2012). Blended and tiered approach to teaching vocabulary within an inquiry based Earth science unit of instruction in sixth grade. A presentation for the international conference for the Association of Science Teacher Education (AETS). Clearwater, FL. (January). Available online at: <http://theaste.org/publications/proceedings/2012proceedings.pl>

Crowther, D. & Cannon J. (2012). Nevada Earth Space Science Initiative (NESSI): A professional development model demonstrating teacher and student learning. A presentation for the international conference for the Association of Science Teacher Education (AETS). Clearwater, FL. (January). Available online at: <http://theaste.org/publications/proceedings/2012proceedings.pl>

Brock, R., & Crowther, D. (2011). Linking Piaget's Cognitive Development Theory to Environmental Identity Development Through Use of an After School Nature Club. A presentation for the international conference for the Association of Science Teacher Education (AETS). Minneapolis, MN. (January). Available online: <http://theaste.org/cgi-bin/2010conference/2011proceedings.pl>

Crowther, D., Tibbs, E., Storke, E., & Leonis, B. (2011). Blended Vocabulary Instruction Through the Tiered Approach Within Inquiry Science for English Language Learners. In (Eds) Yore, L. & Hand, B. Paper Set: Strategic Uses of Language Tasks and Literacy Strategies to Enhance Learning in Open, Guided, and Structured Science Inquiries: Functional Sociolinguistic Approaches. . A presentation for the international conference for the Association of Science Teacher Education (AETS). Minneapolis, MN. (January). Available online: <http://theaste.org/cgi-bin/2010conference/2011proceedings.pl>

Fulton, L. & Crowther, D. (2010) Learning to Implement Science Notebooks: A Comparison of Professional Development Models. Published in the online proceedings of the international conference for the Association of Science Teacher Education. Sacramento, CA.. (January). Available online: <http://theaste.org/cgi-bin/2010conference/2010proceedings.pl>

Brock, R., & Crowther, D. (2010). Reconnecting Children to the Natural World Through the Use of an After School "Nature Club." Published in the online proceedings of the international conference for the Association of Science Teacher Education. Sacramento, CA.. (January). Available online: <http://theaste.org/cgi-bin/2010conference/2010proceedings.pl>

Wallstrum, R. & Crowther, D. (2010). A Comparison of Vocabulary Instruction Methods in Inquiry Science for English Language Learners. Published in the online proceedings of the international conference for the Association of Science Teacher Education. Sacramento, CA.. (January). Available online: <http://theaste.org/cgi-bin/2010conference/2010proceedings.pl>

Crowther, D. T. (2009). *An Analysis of Primary Grade Hispanic (ELL) Students use of Science Notebooks* (pp. 26). Association of Science Teacher Education. Published in the online proceedings of the international conference for the Association of Science Teacher Education. Hartford, CT. (January). Available online: <http://theaste.org/cgi-bin/2009conference/2009proceedings.pl>

Brock, R., Crowther, D., & Cannon, J. (2009). *Decreasing "Nature Deficit": Comparing student achievement by socio-economic level in an After School Science Elk Club*. Published in the online proceedings of the international conference for the Association of Science Teacher Education. Hartford, CT. (January). Available online: <http://theaste.org/cgi-bin/2009conference/2009proceedings.pl>

Willden, J., Crowther, D., Gubanich, A. & Cannon, J. (2003). A Comparison of instructional approach: Inquiry based vs. traditional lecture in introductory biology. Published proceedings of the National Association of Research in Science Teaching (NARST) Annual conference. Philadelphia, PA. Available on CD Rom and (ERIC Document Reproduction Service No. ED 465607).

Crowther, D. T. & Cannon, J. (2003) Why teach hands-on science? Is there room for a textbook in today's inquiry curriculum? *MSTA News Journal*, A Publication of the Montana Science Teachers Association. May. Crowther, D. T. (2002 - 2003) Ecology and the web of life. *Momentum - the Journal of the British Columbia Science Teachers Association*. Vol 4 (2).

Willden, J., Crowther, D.T., Gubanich, A., & Cannon, J. (2002). *A Quantitative comparison of instruction format of undergraduate introductory level content biology courses: Traditional lecture approach vs. inquiry based for education majors*. Paper presented at the Annual Meeting of the Association for the Education of Teachers of Science (AETS). Charlotte, N.C. January 2002. (ERIC Document Reproduction Service No. ED 438 191).

Crowther, D., Cannon, J., Lederman, N., & Curtis, B. (2000). *Goals 2000 and action research: A viable plan for teachers*. Paper & published proceedings of the Annual Meeting of the Association for the Education of Teachers of Science (AETS). Costa Mesa, CA. January 2001. (ERIC Document Reproduction Service No. ED 453083)

Crowther, David T. & Cannon, John R. (2000). *Professional development models: A comparison of duration and effect*. Paper presented at the Annual Meeting of the Association for the Education of Teachers of Science (AETS). Akron, OH. January 2000. (ERIC Document Reproduction Service No. ED 438 191)

Price, E.M.; Ochs, G.T.; Robinson, M.; Crowther, D.; Kimbal, DS. (2000). Operation chemistry in Nevada: Increasing teachers' knowledge of chemistry content and pedagogy. CHED Newsletter, Spring. San Francisco ACS Meeting March 26-30, 2000. Division of Chemical Education, Inc., American Chemical Society, Washington, DC., Spring 2000. Paper90.

Crowther, David T. & Cannon, John R. (1999). *How much is enough? Preparing elementary science teachers through science practicums. The third year of a longitudinal study*. Paper presented at the Annual Meeting of the Association for the Education of Teachers of Science (AETS). Austin, Texas. January 1999. (ERIC Document Reproduction Service No. ED 431-626)

Crowther, D. T. & Cannon, J. R. (1998). *How much is enough? Preparing elementary science teachers through science practicums*. Paper presented at the Annual Meeting of the Association for the Education of Teachers of Science (AETS). Minneapolis, MN, January 1998. (ERIC Document Reproduction Service No. ED 415 112)

Crowther, D. T., & Bonnsetter, R. J. (1997). *Attitudes and experiences of elementary education majors as they experience an alternative content biology course*. Paper presented at the National Association for Research in Science Teaching. Oak Brook, IL. March 21-24 (ERIC Document Reproduction Service No. ED 405 220).

Cannon J. R. & Crowther, D. T. (1997). *An Autopsy of an elementary science curriculum*. Paper presented at the National Association for Research in Science Teaching. Oak Brook, IL. March 21-24. (ERIC Document Reproduction Service No. ED 406163).

Crowther, D. T., & Bonnstetter, R. J. (1997). *Attitudes and experiences of elementary education majors as they experience an alternative content biology course*. Paper presented at the Annual Meeting of the Association for the Education of Teachers of Science (AETS). Seattle, WA, January 1997. (ERIC Document Reproduction Service No. ED398060)

Books & Chapters in Books

Brock, R. & Crowther, D. (In Press) Benefits of Elementary Environmental Education. In (Eds) Mueller, M.P., Tippins, D.J., & Stewart, A.J. *A Guide to Legislation and School Policy in Science Education: Assessing Schools for Generation R (Responsibility)*. New York: Springer.

Brock, R. & Crowther, D. (In Press) After School Nature Clubs: Calling Children Towards Nature. In (Eds) M. Bentley & M. Mueller. *Developing Environmental Awareness in Children: A Nature Studies Guide for Parents and Educators*. New York: Peter Lang.

Crowther, D., Fulton, L., Vila, J. & Hoose, E. (2010). Engaging ELL with hands-on guided inquiry science in Jon Nordmeyer (ED). *Integrating Language and Content*, part of TESOL's Classroom Practice Series. TESOL Press. Alexandria, VA.

Crowther, David T. (2010) Science for English language learners: Research and applications for teacher educators. In Rodriguez, A (Ed). *Science Education as a Pathway to Teaching Language Literacy*. Rotterdam, Netherlands, Sense Publishers (pp 163 - 183).

Crowther, David T. (2010) Response to Gomez, Sherer, Herman, Gomez, White, and Williams' commentary on Science for English language learners: Research and applications for teachers educators. In Rodriguez, A (Ed). *Science Education as a Pathway to Teaching Language Literacy*. Rotterdam, Netherlands, Sense Publishers (pp 191 - 197).

Crowther, David T. (2010) Commentary on Gomez, Sherer, Herman, Gomez, White, & Williams' Supporting meaningful science learning: reading and writing science. In Rodriguez, A (Ed). *Science Education as a Pathway to Teaching Language Literacy*. Rotterdam, Netherlands, Sense Publishers (pp 113 - 116).

Collins, T. and Crowther, D. (2007). "Research Base" and Life Science section in T. Collins & M. Maples (2007). *Gateway to science: Content and concepts*. Heinle, Boston, MA.

Crowther, Robinson, Edmondson & Colburn (2008). Preparing English language learners in the science classroom in Akerson (Ed.) *Interdisciplinary Language Arts and Science Instruction in Elementary Classrooms: Applying Research to Practice*. Lawrence Erlbaum Press.

Crowther, D. T. & Cannon J. R. (2008). Using the *THC* model of science investigation and science notebooking in elementary and middle-level science classrooms in Akerson (Ed.) *Interdisciplinary Language Arts and Science Instruction in Elementary Classrooms: Applying Research to Practice*. Lawrence Erlbaum Press.

Fathman, A. & Crowther, D. (Eds) (2006). *Science for English Language Learners*. Arlington, VA. NSTA Press.

Crowther, D. T. (2001) The Environment in Tolman, M. (Ed). (2001) *Discovering Elementary Science*. Boston, Allyn & Bacon.

Books / Chapters in Progress:

Brock, C., Pennington, J., Crowther, D., & MaGee, M. (In Preparation) Book Club and Scientific Literacy as Tools for Transdisciplinary Teaching and Learning in a Diverse Second Grade Classroom. In (Eds) Implementing 21st Century Literacies: Book Club in Diverse Social, Cultural, and Linguistic Contexts (Book in progress / Pearson)

Crowther, D. T. (In preparation). Science Notebooks in the K-8 Inquiry Science Classroom. NSTA Press, Arlington, VA. (Fall 2012)

Crowther, D. T. (In preparation). Teaching Science through Inquiry for English Language Learners. (Book in progress / Pearson (Spring 2013)

Other Publications:

Crowther, D., Christol, P., Lopez-Freeman, M., Lee, O., Maata, D., Martinez-McDonald, P., Nakashima, S., Roseburry, A., Stoddart, T. & Valadez, J. (2009). NSTA Position Statement: Science for English Language Learners. NSTA Press, Arlington, VA. Available online at:

<http://www.nsta.org/about/positions/ell.aspx?lid=exp>

Funded Grants:

Proposal Awarded:

Crowther, David T. "Nevada Earth Space Science Initiative (NESSI)", Sponsored by Newmont Mining Corp., Private, \$10,000.

Date Awarded: January 2011

Proposal Awarded:

Crowther, David T. (Principal) "Nevada Earth Space Science Initiative (NESSI)", Sponsored by Barrick Mining Corp., Private, \$8,000.

Date Awarded: February 2011

Proposal Awarded:

Crowther, David T (Principal), Lapointe, Daphne D (Co-Principal). "Nevada Earth Space Science Initiative (NESSI)", Sponsored by Nevada Department of Education MSP, State, \$526,913.00

Date Awarded: January 2010

End Date: December 2012

Proposal Awarded:

Crowther, David T. "To the Moon and Beyond", Sponsored by National Space Grant Consortium (NASA), Federal, \$38,161.

Date Awarded: December 2009

End Date: December 2011

Proposal Awarded:

Crowther, David T; Fritsen, Chris. "Curriculum and Development and training in Nevada Geobiology",

Sponsored by Nevada Space Grant Consortium, State, \$20,262.

Date Awarded: October 2009

End Date: December 2010

Proposal Awarded:

Crowther, David T. "Nevada Earth Space Science Initiative (NESSI)", Sponsored by Newmont Mining Corp., Private, \$10000.

Date Awarded: March 2009

End Date: December 2009

Proposal Awarded:

Crowther, David T (Principal), Lapointe, Daphne D (Co-Principal). "Nevada Earth Space Science Initiative (NESSI)", Sponsored by Nevada Department of Education MSP, State, \$439,434. for 3 Years (2007 – 2009)

Date Submitted: November 28, 2006

Project Number: 0705040

Proposal Awarded:

Crowther, David T (Principal), Lapointe, Daphne D (Co-Principal). "Nevada Earth Space Science Initiative (NESSI)" *Newmont Mining Corporation – Community Investment / Education Program (Funded 3 years, 2007 - 2009)*

Awarded 30,000 (10,000 per year for 3 years)

Submitted: June 2007.

Proposal Awarded:

David T. Crowther (Principal) Co – P.I. George Ochs (WCSD) & Ellen Jacobson (UNR – College of Engineering). *Integrated Science Content Enhancement Program (ISCEP) for Middle Level Teachers. (Funded for 3 years, 2003 – 2006)*

State Department of Nevada – Math, Science, Partnerships (MSP)

Awarded: 439,434 for 3 Years

Date Submitted: November 7, 2003

Project Number: 04050106

Proposal Awarded:

Ann Diggins (Principal) Co-Investigator: David Crowther (Education component)

Howard Hughes Medical Institute Grant

(Funded 3 years 2003 – 2006)

University of Nevada Medical School

Awarded \$539,300.00 for 3 years.

For educational outreach @ 100,000 Science Partners, Biology 110 for elementary education majors, and development of Physics for elementary education majors..

Proposal Awarded:

David T. Crowther, Principal Investigator

Nevada Operation Physical Science (NOPS)

(Funded 3 years 2000 – 2002)

D. D. Eisenhower for higher education in Nevada.

Awarded (total) 118,500.00 over 3 years

Dwight D Eisenhower - State of Nevada 85,500.

Matching funds - Total 32,500.00

Matching Funds: 2,500 Reno Hilton for 2 years (In Kind and materials / use donation).
12,500 Northwest Regional Professional Development Program for 2 years (NRWPDP)

Proposal Awarded:

Ann Diggins, Principal Investigator; Co-Investigator: David Crowther (Education component)

Howard Hughes Medical Institute Grant

(Funded 3 years 2000 – 2003)

University of Nevada Medical School

Awarded 240,000.00 over three years.

For educational outreach 60,000. Science Partners & Biology 110 for elementary education majors.

Proposal Awarded:

Paul Buck, Principal Investigator, Co-I. David T. Crowther, Ph.D. (Educational Research & Design)

Nevada Research Experiences for Teachers and Students Project (N-STEP).

(Funded 3 Years 1999 – 2001)

National Science Foundation (NSF) - Teacher Enhancement

Awarded 250,000.00 over 3 years.

Proposal Awarded:

David T. Crowther, Principal Investigator

Nevada Operation Chemistry

(Funded for 3 years 1997 – 1999)

Dwight D. Eisenhower Federal Grant from State Department of Education (DDE)

Awarded (total) 185,705.00 over 3 years

(1999) Funded DDE = **41,265** + Other matching funds = **27,700**; Total **68,965**. / 1 Year (Funding sources included - DDE Funds = 41,265; Washoe County School District = 5,000; Clark County School District = 3,000; Humboldt Co. = 3,000; Douglas Co. 500; Cont. Ed. 1,200 State Department of NV = 5,000; Newmont Gold Inc. = 10,000)

(1998) Funded DDE = **28,740** + Other matching funds = **35,000**; Total **58,740**. / 1 Year

(Funding sources included - DDE Funds = 28,740; Howard Hughes Medical Institute = 10,000; Washoe County School District = 5,000; Clark County School District = 2,000; Humboldt Co. = 2,000; Douglas Co. 1,500; Pershing Co. 500; State Department of NV = 4,000; Newmont Gold Inc. = 10,000)

(1997) DDE = **19,000** + Other matching funds = **39,000**; Total Grant Award **58,000** / 1 year.

(Funding sources included - DDE Funds = 19,000; Howard Hughes Medical Institute = 10,500; Washoe County School District = 7,000; Clark County School District = 2,000; Rural Alliance = 7,000; State Department of NV = 5,000; Sante Fe Pacific Mining Corp. = 7,500)

Proposal Awarded:

Eric E. Davies, Principal Investigator; Co – P.I. David Crowther & George Veomett

Howard Hughes Medical Institute (HHMI).

(Funded for 3 years 1994 – 1996)

Grant for biological research and outreach programs.

Awarded \$1,000,000.

Specifically, continuation for hands-on science courses for elementary education majors. \$300,000 of the 1 million was specifically budgeted over four years.

Proposal Awarded:

Paul Kelter, Principal Investigator; Co- P.I. David Crowther

(1994) Nebraska Operation Chemistry

Dwight D Eisenhower (DDE) Grant from State Department of Nebraska

Awarded 36,000.

Training and development of chemistry education for preservice / inservice teachers.

Recent Grants submitted – not funded (Rejected):

(Rejected)

Northern Nevada English Learning Initiative (NNELI)

Co. P.I. Rod Case, David Crowther, & Jacques Ewing Taylor

Federal (Office of English Language Development) 3,742,500

Submission Date: May 25, 2011.

(Rejected)

Summer of Innovation (SOI)

Co. P. I. Chris Fritsen, Jeffrey Lacombe, Eric Wang, & David Crowther

Federal (NASA): 2,000,000.00

Submission Date: February 25, 2010.

(Rejected)

Collaboration of University and School Personnel for Improved Teaching for English Language Learners (CUSP-ITELL).

U.S. Department of Education, Office of English Language Acquisition

Principal Investigator: David T. Crowther; Co- P.I.: Michael Robinson, MaryAnn Robinson

Proposed 1,500,000.00 for 3 years.

Grant proposal to incorporate EL strategies into teacher education at UNR and Washoe County School District. Faculty and Teacher Training.

Submission Date October 2009

(Rejected)

G-K/12 NSF: Supporting Nevada K-12 Standards via Computer Vision, Robotics, & Game AI

Collaborative grant with College of Engineering & Computer Science

Principal Investigators:

*George Bebis - Associate Professor, Computer Science & Engineering Dept., UNR (CV&IP)

*David Crowther - Associate Professor, Curriculum, Teach. & Learn. Dept., UNR (K-12 liaison)

* Sushil Louis - Associate Professor, Computer Science & Engineering Dept., UNR (GAI)

* Monica Nicolescu - Assistant Professor, Computer Science & Engr. Dept., UNR (Robotics)

Fwd: FastLane Proposal 0440482 submitted] **\$617,490 for 1 year (2004)**

(Rejected)

Principal Investigator: David T. Crowther

Merging University Environmental Science and K_12 Education with Teacher Training in the Rural West

National Science Foundation (NSF) Track 1, GK_12

Date Submitted: Jun. 4, 2003 Project number: 0338243

Grant for 1,700,000.00

Internal Funding/University Grant(s):

Deans grant for Research Related Travel (2010) (750.00). Wrote a grant to support costs to present research at the Association for Science Teacher Education (ASTE) International Conference in Minneapolis, MN. (Jan 2011).

Deans grant for Research Related Travel (2009) (750.00). Wrote a grant to support costs to present research at the Association for Science Teacher Education (ASTE) International Conference in Sacramento, CA. (Jan 2010).

Deans grant for Research Related Travel (2008) (750.00). Wrote a grant to support costs to present research at the Association for Science Teacher Education (ASTE) International Conference in Hartford, CT. (Jan 2009).

Deans grant for Research Related Travel (2007) (1000.00). Wrote a grant to support costs to present research at the Association for Science Teacher Education (ASTE) International Conference in St. Louis, MO. (Jan 2008).

Deans Research for Scholarly activities grant (2006) (Granted 2,000.00) for materials and help in teaching inquiry science in diverse settings. Research will take place at Veteran's Elementary school.

Deans grant for Research Related Travel (2006) (1000.00). Wrote a grant to support costs to present research (3 presentations) at the American Educational Research Association (AERA) International Conference in Chicago, IL. (April 2007).

Deans Research for Scholarly activities grant (2005) (Granted 2,000.00) for materials and help in teaching inquiry science in diverse settings. Research will relate to Brandy Reichard's research and will take place at Veteran's Elementary and Jesse Beck Elementary schools. (April 2005)

Deans grant for Research Related Travel (2005) (1000.00). Wrote a grant to support costs to present research (3 presentations) at the Association for the Education of Teachers of Science (AETS) International Conference in Portland, OR. (January 2006) and the National Science Teachers Association (NSTA) National Convention in Anaheim, CA. (April, 2006).

Instructional Enhancement Grant, University of Nevada, Reno (2004). (Granted 3,500.00) for equipment to use technology in 364 / 365 courses. Included portable computer and computer projector. Note that this grant has also resulted in about 30,000 for updates in 2026 & 2025 (Math and science labs).

Deans Research for Scholarly activities grant (2004) (1,300.00). Wrote a grant for the purchase of digital camcorders and digital editing software to have science methods / practicum students video tape, analyze and create an electronic portfolio based upon real teaching experience in the classroom. Research to take place in Spring 2005.

Deans grant for Research Related Travel (2004) (750.00). Wrote a grant to support costs to present research (3 presentations) at the Association for the Education of Teachers of Science (AETS) International Conference in Colorado Springs, CO. January 2005.

Editorials:

Crowther, D & Cannon J. (2009). Professional Development Models: Nevada Earth Space Science Initiative (NESSI). *CESI Science* Vol 41 (1). Winter.

Crowther, D & Cannon J. (2009). Happy Birthday Darwin (200 Years) *CESI Science* Vol 40 (2). Winter

Crowther, D & Cannon J. (2008). Science in Every Grade Every Day! *CESI Science* Vol 40 (Summer).

Crowther, D. & Cannon J. (2006). A fond farewell. *CESI Science* Vol 39 (2). Winter.

Crowther, D. & Cannon J. (2006). Evolution in the elementary classroom. *CESI Science* Vol 39 (1). Winter.

Crowther, D. & Cannon J. (2005). Selecting and Using Science Trade Books in the Classroom. *CESI Science* Vol 38 (1). Winter.

Crowther, D. & Cannon J. (2005). Science and English Language Learners. *CESI Science* Vol 38 (2). Summer.

Crowther, D. & Cannon J. (2004). Management Strategies for the Hands-on Science Classroom *CESI Science* Vol 37 (1). Winter.

Crowther, D. & Cannon J. (2004). Discovering Inquiry. *CESI Science* Vol 37 (2). Summer.

Crowther, D. & Cannon J. (2003). The nature of science (NOS): It's elementary my dear Watson. *CESI Science* Vol 36 (2). Summer.

Crowther, D. & Cannon J. (2003). Why teach hands-on science? Is there room for a text book? *CESI Science* Vol 36 (1). Winter.

Crowther, D. & Cannon J. (2002). Teaching science through language arts and mathematics. *CESI Science* Vol 35 (2). Summer.

Crowther, D. & Cannon J. (2002). The history of Science, We have come a long way. *CESI Science* Vol 35 (1). Winter.

Crowther, D. & Cannon J. (2001). 15 Suggestions toward increasing the success of elementary teachers professional development. *CESI Science* Vol 34 (2). Summer.

Crowther, David T. (2001). Re-visiting the wheel. "Resources and Programs in Higher Education." *Electronic Journal of Science Education (EJSE)*. Vol 5 (3). March.

Crowther, D. & Cannon J. (2001). Action Research. *CESI Science* Vol 34 (1). January.

Crowther, David T. (2000). Bar Tending for Science: The science of fermentation. *Electronic Journal of Science Education (EJSE)*. Vol 5 (1). September.

Crowther, David T. (2000). Teaching in Paradise: The first A.P. Biology Oceanographic Teaching Research Cruise. *Electronic Journal of Science Education (EJSE)*. Vol 4 (3). March.

Crowther, David T. (1999). The Demise of Old Red: A Lesson in Applied Physics. *Electronic Journal of Science Education (EJSE)*. Vol 4 (1). September.

Crowther, David T. (1999). Here we Grow again: Applications of Research & Model Inquiry Lessons. *Electronic Journal of Science Education*. Vol 3 (3). March.

Crowther, David T. (1998). The History of Science - What a story!! *Electronic Journal of Science Education*. Vol 3 (1). September.

Crowther, David T. (1998). Metamorphosis of preservice teachers . . . *Electronic Journal of Science Education*. Vol 2 (4). June.

Crowther, David T. (1997). The Constructivist Zone, Under Construction. *Electronic Journal of Science Education*. Vol 2 (2). December.

Crowther, David T. (1997). Why Reinvent the Wheel ?? *Electronic Journal of Science Education*. Vol 1 (4). June.

Crowther, David T. (1996). An Ordinary Summer Field Trip for Middle School Students to the Minnesota River Starts an Interesting Chain of Events Drawing National Attention! *Electronic Journal of Science Education*. Vol 1 (2). December.

Monographs:

Crowther, D. (1995). Of Pancakes and Chemistry. (Activity and lab involving acid/base chemistry in cooking).

Crowther, D. (1995). You'll get the point. (Activity involving polymers in balloons).

Crowther, D. & Jacobitz, K. (1995). Shake it up baby. (Activity involving states of matter and making ice cream).

Lab Manuals:

Crowther, D. & Gubanich, A (2006). Biology for Education Majors. Lab Manual (327 pages).

Crowther, D. Cannon, J., & Bennum, D. (2002). Nevada Operation Physical Science 2001. Lab and Activity Book. 250 + pages.

Crowther, D. Cannon, J., & Bennum, D. (2001). Nevada Operation Physical Science 2001. Lab and Activity Book. 250 + pages.

Crowther, D. & Gubanich, A. (2001). Nevada Operation Biology. Lab Book and Activities. 250+ pages.

Crowther, D. Cannon, J., & Bennum, D. (2000). Nevada Operation Physical Science 2000. Lab and Activity Book. 250 + pages.

Crowther, D., Robinson, M., & Price, B., (1998). Nevada Operation Chemistry II Lab and Activity Book. 200+ pages.

Crowther, D., Ochs G., Price, B., & Kimbal, D. (1998). Nevada Operation Chemistry I Lab and Activity Book. 300+ pages. (Revised edition).

Crowther, D., Ochs G., Price, B., & Kimbal, D. (1997). Nevada Operation Chemistry Lab and Activity Book. 300+ pages.

Crowther, D., & Jacobitz, K. (1996). Howard Hughes Medical Institute (HHMI) project summary with activities for Biology 295.

Crowther, D., & Jacobitz, K. (1996). Syllabus and activity lab book for Biology 295 - Hands-on Biology for Elementary Education Majors. (Second Edition). 500+ pages.

Crowther, D., Landon, J., & Jacobitz, K. (1993) Syllabus and activity lab book for Biology 295 - Hands-on Biology for Elementary Education Majors. (First Edition). 400 + pages.

Publications edited:

Klentschy M (2010) *Using Science Notebooks in the Middle School* . NSTA Press

Glencoe / McGraw Hill (2009) Life Science (To be published in 2012)

Klentschy, M. (2007). *Using Science Notebooks in Elementary Classrooms*. NSTA Press (380 pages).

Linn, M. & Eylon, B. (2006) Science Learning and Instruction. Manawa, N.J. Lawrence Erlbaum Associates Publishers. (approx 180 pages).

Settlage, J. & Southerland, S. (2005) Teaching Science in Diverse Classrooms. Reviewed 5 chapters for a new methods text book utilizing diversity in the science classroom. To be published by Pearson Allyn & Bacon sometime in 2005. Manuscript / 250 pages.

Janice Van Cleave (2003) *Science Models*. This book involved how to help children and teachers make models in the content areas of science. (256 pages).

Janice Van Cleave (2003) *Science Around the World: Biomes*. This book is about activities and classroom ideas for teaching about the different world biomes. (277 pages).

Lederman, N; Lederman, J. & Bell, R. (2003). *Elementary Science Methods*. Allyn & Bacon. 560 pages).

Mitchell, D. (2003). *Children's Literature, An invitation to the world*. Allyn & Bacon, Boston, MA.

Grimm, Sherry. (1996). *Middle School Idea Book: A compendium of previously published ideas and activities for middle school teachers*. Reston, VA. National Association of Biology Teachers.

Journal Editorships

Editor of *CESI Science*. CESI science is the official journal for the Council of Elementary Science International. Duties include editing, review, formatting, and printing of all articles and activities included in the journal. (2000 – 2006 & 2008 - 2010).

Associate Editor of the *Electronic Journal of Science Education*. Responsibilities include writing editorials, editing and formatting articles for electronic publication, maintaining the homepage, and graphic designing for the journal. (1996 - 2006)

Editorial Review Boards

Editorial Review Board & Advisory Committee for *Science & Children*. Duties include reviewing manuscripts for publication. (2001 – 2004 * 2009 to 2010), and planning, organizing and brainstorming new journal ideas & themes.

Editorial Review Board for *Science Education*. Duties include reviewing manuscripts for publication. (1997 - 2001)

National/ International Boards & Conventions

Board Member, Bailey Charter Elementary School (2011 – 2014)

Member International Science Education Committee, National Science Teachers Association (2010– 12)

Member Toyota Tapestry Grant review committee: Chair for Science and Literacy competition (2008-10)

Editorial Board *CESI Science*, the Journal for the Council for Elementary Science International (99 – 05 & 08 - 10)

Member Elections Committee for the Association for Science Teacher Education (2005-2007)

Member of the Children's Book Council (CBC) for NSTA and the publishers of fiction books for children. (2003-2007) Chair of committee in 04 & 06.

Program Chair for the National Science Teachers Association (NSTA) regional conference in Reno, NV. December 2003.

Board / Council member for the National Science Teachers Association (NSTA) (2001 - 2003)

Advisory Board for *Science and Children*, a publication for the National Science Teachers Association (NSTA) (2001 - 2003)

President for Council for Elementary Science International (CESI) Term from 2001 - 2003.

President elect for Council for Elementary Science International (CESI) Term from 1999 - 2001.

Board member for the Council for Elementary Science International (CESI) Term from 1998 - 2000.

Program Chair for the National Science Teachers Association (NSTA) regional conference in Reno, NV. December 1999.

Teaching Awards:

- 2012 Senior Scholar Meentor Award (Gina Rosa)
- 2009 Senior Scholar Mentor Award (Jaime Sparks)
- 2007 University of Nevada, Tibbett's Teaching Award – Runner-up.
- 2005 Who's Who Among America's Teachers
- 2004 Who's Who Among America's Teachers
- 2003 Who's Who Among America's Teachers
- 1999 Outstanding College of Education Instructor Award 1999, University of Nevada, Reno
- 1998 Who's Who Among America's Teachers
- 1995-6 Recognition Award for Contributions to Students presented by UNL Parents Association and UNL teaching Council.
- 1994-5 Recognition Award for Contributions to Students presented by UNL Parents Association and UNL teaching Council.

Grant Proposal Reviewer:

Reviewed proposals for the NASA K-12 Education grants. December 2009.

Reviewed proposals for the NASA K-12 Education grants. December 2008.

Reviewed proposals for the Nevada Teaching & Research-Enhancement & Collaboration (TREC) Grants. A project of Nevada EPSCoR and the University and Community College system of Nevada. April 1997.

Program Proposal Reviewer:

Association for Science Teacher Education (ASTE) - Reviewed proposal for 2010 Annual conference. Sacramento, CA. 2010.

Association for Science Teacher Education (ASTE) - Reviewed proposal for 2009 Annual conference. Hartford, CN. 2009.

Association for Science Teacher Education (ASTE) - Reviewed proposal for 2008 Annual conference. St. Louis, MO. 2008.

Association for Science Teacher Education (ASTE) - Reviewed proposal for 2007 Annual conference. Clearwater, FL. 2007

Association for Science Teacher Education (ASTE) - Reviewed proposal for 2006 Annual conference. Portland, Or. 2006.

National Science Teachers Association (NSTA) - Coordinated and reviewed proposals for 2003 Regional conference in Reno, NV. 2003 (Dec.)

Association for the Education of Teachers of Science (AETS) - Reviewed proposal for 2000 Annual conference. Akron, OH. 2000.

National Science Teachers Association (NSTA) - Coordinated and reviewed proposals for 1999 Regional conference in Reno, NV. 1999

Association for the Education of Teachers of Science (AETS) - Reviewed proposal for 1999 Annual conference. Austin, TX. 1999.

National Association for Research in Science Teaching (NARST) - Reviewed proposals for 1998 Annual Conference in San Diego, CA.

Association for the Education of Teachers of Science (AETS) - Reviewed proposal for 1998 Annual conference. Minneapolis, MN. 1997.

American Water Resources Association (AWRA) National conference Denver, CO. 1997.

Association for the Education of Teachers of Science (AETS) - Reviewed proposal for 1997 Annual conference. Cincinnati, OH, 1996.

Association for the Education of Teachers of Science (AETS) - Reviewed proposal for 1996 Annual conference. Seattle, WA, 1995.

Professional Meeting Coordinator:

National Science Teachers Association (NSTA) Program Coordinator for 2003 Regional Conference in Reno, NV. This involved sending out, reviewing, and collecting session proposals (about 300) and coordinating general session and featured presentation speakers. The work of organization to conference date was a little more than a year in time.

National Science Teachers Association (NSTA) Program Coordinator for 1999 Regional Conference in Reno, NV. This involved sending out, reviewing, and collecting session proposals (about 300) and coordinating general session and featured presentation speakers. The work of organization to conference date was a little more than a year in time.

CESI Luncheon and Awards Banquet Coordinator & Co-host with Bill Nye. National Science Teachers Association (NSTA) National Convention, Las Vegas, NV. (April, 1998).

This was a rather large event which had nearly 700 people in attendance. Each year at the National Science Teachers Association, the Council for Elementary Science International has an awards banquet. I was in charge this year. The event was held in Las Vegas last April. My duties included planning and coordinating a meal for 700 people, coordinating with the guest speaker - Bill Nye, conducting the awards ceremony, introducing the guest speaker, getting sponsors, running the raffle, and collecting tickets etc.

Invited Research/ Teaching:

E Hele Au Ma Kai - Advanced Placement Biology Oceanographic Research Cruise.

I was selected to teach a course in water chemistry on the Advanced Placement Biology Oceanographic Research Cruise off the coast of Oahu, Lanai & Maui, HI. (November 24 - 30, 1999) This included teaching water studies to 82 AP biology students on a daily basis for the 5 days at sea. Other duties included assisting other laboratory and field studies while on the boat.

Keynote & Invited Lectures:

Crowther, D. (2011). Developing Vocabulary for English Language Learners Through Inquiry Science. A Keynote Presentation for the Council for Elementary Science International (CESI) at the National Science Teachers Association (NSTA) Western Regional Conference. Seattle, WA. (2011)

Crowther, D. & Storke, E. (2011). Developing and Integrating Science and Math Experiences for English Language Learners. A Professional Development Workshop for Bilingual Paraprofessionals in Jefferson Parish. New Orleans, LA. (January)

Crowther, D. & Storke, E. (2010). *Developing and Integrating Science and Math Experiences for English Language Learners*. A Professional Development Workshop for Bilingual Paraprofessionals in Jefferson Parish. New Orleans, LA. (January)

Crowther, D. T., (2009) "Strategies for Engaging Exceptional Students in Science Using Inquiry", Invited, Intell International Science & Engineering Fair, Reno, NV. (May).

Fulton, L., Roselinsky, W., Shane, J., Crowther, D. T. (2009). Science as a Vehicle for Language Development with ELL Students.", Accepted, National Science Teachers Association (NSTA), New Orleans, LA. (March 2009).

Crowther, D. T., Workosky, C., (2009) "Developing a Position Statement for Science and English Language Learners (ELL)", Accepted, National Science Teachers Association (NSTA), New Orleans. (March 2009).

Crowther, D. (2008). Life science and guided inquiry for elementary classrooms. A presentation for the Discovery Science Center and the Thousand Oaks School District. Thousand Oaks, CA. (March).

Crowther, D. (2007). Exciting and Engaging Hands-on Inquiry Science. A keynote address for the Pennsylvania Science Teachers Association (PSTA) Conference in Science Education. Hershey, PA. (December).

Crowther, D, Cannon, J.(2007). Science and the English Language Learner, Nature of Science, National Standards and Inquiry Science, Science Notebooks. Four Keynote addresses for the Professional Development Institute for Science Instruction and NCLB. Fon du lac, WI. (Aug).

Crowther, D. (2007). *Science for English Language Learners: Research and Applications for Teacher Educators*. Paper presented for the Institute on Science Education Research (ISER) II Science Education as a Pathway to Teaching Literacy in association with the Center for Equity and Biliteracy Education Research (CEBER) and the American Association for Advancement of Curriculum Studies (AAACS). University of Illinois (Chicago) April.

Van Sickle, M., Baker, D., Piburn. M., Rhoton, E. Czerniak, C. Cannon, J., Crowther, D. (2006). Publishing in Science Education Journals. (an invited Panel Discussion). Presentation at the International conference for the Association for Science Teacher Education (ASTE). A presentation at the Association for Science Teacher Education (ASTE) International Conference. Portland, OR. January.

Crowther, D. (2006). Elementary Science and the English Language Learner. Keynote address for the Council for Elementary Science International (CESI) breakfast. At the National Science Teachers Association Regional Conference in Science Education. Omaha, NE. October 20.

Crowther, D. (2005) Presentation for the Ozark Rural Systemic Initiative (ORSI) . 2 days of teacher workshops and an evening of Family Science with the community in Southwest City, MO. 30 teachers attended the workshop and about 170 parents and children attended the Family Science Night.

Crowther, D. (2005). Science For All: An Inquiry Based Approach. A Presentation at the Seventh Annual English Language Learning Summer Institute & Principal's Institute. Salisbury Univeristy, Salisbury, MD. July

Crowther, D. (2005). English Through Science: Teaching Science to English Language Learners. A

Presentation at the Seventh Annual English Language Learning Summer Institute & Principal's Institute. Salisbury University, Salisbury, MD. July

Van Sickle, M., Baker, D., Pilburn, M., Rhoton, E., Czerniak, C., Cannon, J., Crowther, D. (2005). Publishing in Science Education Journals. (an invited Panel Discussion). Presentation at the International conference for the Association for Science Teacher Education (ASTE). Colorado Springs, CO. January. (*)

Crowther, D. (2004). Mineral Education, Inquiry Science and the K-12 Classroom. Keynote Address. 13th Annual National Minerals Education Conference. Lake Tahoe, Incline, NV. July 11-14.

Luft, J., Cannon, J., Crowther, D., Niess, M., Lederman, N., Enochs, L., Pilburn, M., Falconer, K., & Coburn, A. (2003). *Publishing in science education journals*. Paper & panel discussion at the Annual Meeting of the Association for the Education of Teachers of Science (AETS). Nashville, TN. (January).

Luft, J., Cannon, J., Crowther, D., Niess, M., Lederman, N., Enochs, L., Pilburn, M., Falconer, K., & Coburn, A. (2003). *Publishing in science education journals*. Paper & panel discussion at the Annual Meeting of the Association for the Education of Teachers of Science (AETS). St. Louis, MO. (January).

Crowther, D. & Cannon, J. (2002). Harry Potter Science. Delta Rural Systemic Initiative (DRSI). Three state NSF collaborative of MS., LA., & AK. Involving improvement in science education. Monroe, LA. July.

Crowther, D. & Cannon, J. (2002). Harry Potter Science. Professional Development workshop for Opolusa School District. Involved 3 day workshop on improvement in science instruction. Opolusa, LA. June 9-12.

Crowther, D. & Cannon, J. (2002). Integrating Science, Math, and Language Arts. Delta Rural Systemic Initiative (DRSI). Three state NSF collaborative of MS., LA., & AK. Involving improvement in science education. Jackson, MS. November.

Crowther, D. & Cannon, J. (2002). Hands On Science Teaching Workshop. One week workshop on integrated science in the K-5 classroom. Jena, LA. (January)

Zike, D., Crowther, D., Cannon, J., Loftin, L., Gubanich, A. (2001). Science graphs and tables in Life, Earth & Physical Sciences. Nevada State Science Teachers Association (NSSTA). Las Vegas, NV. October.

Crowther, D., & Cannon, J. (2000). Standards and Beyond: Where we go from here. Keynote address, Nevada State Science Teachers Association (NSSTA). Lovelock, NV. October.

Crowther, D.T. & Cannon, J. R. (2000). National Science Standards, Oregon & You. Keynote address at the Oregon Goals 2000 conference. Eugene, OR. (April)

Crowther, D. (2000). Science and Standards: Where are we now.... Keynote Address, Nevada Mining Association (NMA). Las Vegas, NV. April.

Crowther, D. & Cannon, J. (1999). Science Education Standards and Nevada. Nevada State Science Teachers Association (NSSTA). Annual Conference. Tonopah, Nevada. April.

Crowther, D. & Cannon, J. (1999). Science Education Standards and Nevada. Elko Science Symposium.

Elko, Nevada. February.

Crowther, David T. (1997). Science Education Reform and University/College Implications. Oklahoma Teacher Education Collaborative (O-TEC) Spring Conference. Stillwater, OK. May.
Oklahoma Collaborative for Excellence in Teacher Preparation funded by NSF.

Crowther, David T. (1997). Science Education Reform and University/College - School Collaborations. Oklahoma Teacher Education Collaborative (O-TEC) Statewide Conference. Stillwater, OK. November.
Oklahoma Collaborative for Excellence in Teacher Preparation funded by NSF.

Professional National/International Presentations: (Full Peer Reviewed):

Crowther, D., Storke, E. & Shahidullah, K. (2012). Science for English Language Learners: Sheltered Content Instruction for Inquiry Science. Short Course presentation at the National Conference on Science Education for the National Science Teachers Association (NSTA). Indianapolis, IN. (March)

Crowther, D. & Loftin, L. (2012). Edible Earth Movements and the Nevada Earth Space Science Initiative (NESSI). A presentation at the National Conference on Science Education for the National Science Teachers Association (NSTA). Indianapolis, IN. (March)

Crowther, D, Storke, E. & SHahidullah, K. (2012). Inquire to Acquire: Science as a Catalyst for English Language Learning. A Presentation at the 2012 Smithsonian Institute and the National Science Resources Center (NSRC) National Science Education Leadership Development Forum. Indianapolis, IN. (March)

Crowther, D. (2012). Development of the blended / tiered approach to scaffolding academic language for English language learners. A presentation at the International meeting for the National Association for Research in Science Teaching (NARST). Indianapolis, IN. (March)

Leonis, B., Crowther, D. & Storke, E. (2012). Blended and tiered approach to teaching vocabulary within an inquiry based Earth science unit of instruction in sixth grade. A presentation for the international conference for the Association of Science Teacher Education (ASTE). Clearwater, FL. (January).

Crowther, D. & Cannon J. (2012). Nevada Earth Space Science Initiative (NESSI): A professional development model demonstrating teacher and student learning. A presentation for the international conference for the Association of Science Teacher Education (ASTE). Clearwater, FL. (January).

Crowther, D & Storke, E (2011). Science for ELL: Vocabulary Instruction for Inquiry Science for English Language Learners. A presentation at the National Science Teachers Association (NSTA) Western regional conference. Seattle, WA. (December)

Crowther, D. (2011). Dealing with Density 1.0: Activities to Support STEM in the classroom. A presentation at the National Science Teachers Association (NSTA) Western regional conference. Seattle, WA. (December)

Crowther, D. & Storke, E. (2011). Developing and Integrating Science and Math Experiences for English Language Learners. A Professional Development Workshop for Bilingual Paraprofessionals in Jefferson

Parish. New Orleans, LA. (January)

Brock, R., & Crowther, D. (2011). Linking Piaget's Cognitive Development Theory to Environmental Identity Development Through Use of an After School Nature Club. A presentation for the international conference for the Association of Science Teacher Education (AETS). Minneapolis, MN. (January).

Crowther, D., Tibbs, E., Storke, E., & Leonis, B. (2011). Blended Vocabulary Instruction Through the Tiered Approach Within Inquiry Science for English Language Learners. In (Eds) Yore, L. & Hand, B. Paper Set: Strategic Uses of Language Tasks and Literacy Strategies to Enhance Learning in Open, Guided, and Structured Science Inquiries: Functional Sociolinguistic Approaches. . A presentation for the international conference for the Association of Science Teacher Education (AETS). Minneapolis, MN. (January).

Crowther, D., Storke, E., Tibbs, E., Wallstrum, R. & Leonis, B. (2011) Science for English Language Learners: Adaptations for Inquiry Science Teaching While Building Language Skills. Short Course. A presentation for the international conference of Science Education for the National Science Teachers Association (NSTA). San Francisco, CA. (March).

Crowther, D., Cannon, J., Loftin, L., & Cannon, K. (2011). Nevada Earth Space Science Initiative: Improving Student Learning Through Engaging Inquiry. A presentation for the international conference of Science Education for the National Science Teachers Association (NSTA). San Francisco, CA. (March).

Storke, E, Leonis, B., Tibbs, E., Wallstrum, R. & Crowther, D. (2011). Science for English Language Learners: Modifications to SIOP for Inquiry Instruction. A presentation for the international conference of Science Education for the National Science Teachers Association (NSTA). San Francisco, CA. (March).

Brock, R. & Crowther, D. (2011). Designing Lessons to Impact Environmental Identity Development in Children. A presentation for the international conference of Science Education for the National Science Teachers Association (NSTA). San Francisco, CA. (March).

Crowther, D., Storke, E., & Leonis, B. (2011). Science for ELL: Modifications to SIOP/GLAD for Inquiry Teaching. A presentation for the international conference for Teachers of English to Speakers of Other Languages (TESOL) New Orleans, LA. (March).

Brock, R., & Crowther, D. (2010). *Reconnecting Children to the Natural World Through the Use of an After School "Nature Club."* A presentation for the international conference for the Association of Science Teacher Education (AETS). Sacramento, CA. (January).

Fulton, L. & Crowther, D. (2010) *Learning to Implement Science Notebooks: A Comparison of Professional Development Models.* A presentation for the international conference for the Association of Science Teacher Education (ASTE). Sacramento, CA. (January).

Wallstrum, R. & Crowther, D. (2010). *A Comparison of Vocabulary Instruction Methods in Inquiry Science for English Language Learners.* A presentation for the international conference for the Association of Science Teacher Education (ASTE). Sacramento, CA. (January).

Wallstrum, R., Crowther, D. T., Stoddart, T., (2009) "Preparing Teacher Educators to Integrate Appropriate Research Based Strategies for Working with English Language Learners in Math and Science Teacher Preparation Courses.", Accepted, Association for Teacher Educators (ATE), Reno, NV.. (August).

Crowther, D. T., (2009) "Professional Development Conference: Science for English Language Learners (ELL): Integrating Reading, Writing, Listening, Speaking and Thinking into the K-8 Classroom", Accepted, National Science Teachers Association (NSTA), New Orleans, LA. (March).

Crowther, D. T., Vila, J., (2009) "Research on Effective Science Instruction for English Language Learners.", Accepted, National Science Teachers Association (NSTA), New Orleans. (March).

Fulton, L., Crowther, D. T., (2009) "An analysis of Primary Grade Hispanic (ELL) Students use of Science Notebooks", Accepted, Association of Science Teacher Education, Hartford, CN. (January).

Brock, R., Crowther, D. T., (2009) "Decreasing "Nature Deficit": Comparing student achievement by socio-economic level in an After School Science Elk Club", Accepted, Association of Science Teacher Education, Hartford, CN. (January).

Cannon, J. R., Crowther, D. T. (2009) "Using the learning cycle as a model for Elementary Science Teacher Preparation Programs", Accepted, Association of Science Teacher Education, Hartford, CN. (January).

Crowther, D. (2008). Using Polymers to model the Learning Cycle in Elementary Classrooms. A presentation at the California Science Teachers Association (CSTA) Annual conference. San Jose, CA. (October)

Julianna Texley (NSTA Recommends), Lynn Cherry (Children's Book Author), David Crowther (University of Nevada & NSTA CBC), Suzanne Flynn (Cambridge College). (2008). Grins, Grimaces, and other great animal stories: The depiction on living things in children's literature. A presentation at the National Science Teachers Association (NSTA) National Conference on Science Education. Boston, MA. (March)

Camille T. Stegman (Virginia City Middle School: Virginia City, NV); Jennifer Willden (Hugh Gallagher Elementary School: Virginia City, NV); David T. Crowther (University of Nevada: Reno, NV) (2008). Pirate Science! Integrating science into other subject areas. A presentation at the National Science Teachers Association (NSTA) National Conference on Science Education. Boston, MA. (March)

Patricia Bricker (Western Carolina University: Cullowhee, NC); David T. Crowther (University of Nevada: Reno, NV); Donna L. Knoell (Educational Consultant: Shawnee Mission, KS); Kristin T. Rearden (University of Tennessee: Knoxville, TN); Len Sharp (Phoenix High School: Phoenix, NY); Diana Wiig (Board of Cooperative Educational Services: Rock Springs, WY); Peggy Carlisle (ExCEL Instructor: Jackson, MS) (2008). Outstanding Science Trade Books 2008: NSTA/Children's Book Council Selections. A presentation at the National Science Teachers Association (NSTA) National Conference on Science Education. Boston, MA. (March)

John R. Cannon (University of Nevada: Reno, NV); David T. Crowther (University of Nevada: Reno, NV); Louis Loftin (NWRPDP - Nevada: Reno, NV); Kelly P. Cannon (Washoe County School District: Reno, NV); Ryan Brock (University of Nevada: Reno, NV) (2008) Edible Elementary Earth Science and the Nevada Earth / Space Science Initiative. A presentation at the National Science Teachers Association (NSTA) National Conference on Science Education. Boston, MA. (March)

Crowther, D. (2008). Balloons, Diapers, and Gak - Oh, My! A presentation at the National Science Teachers Association (NSTA) National Conference on Science Education. Boston, MA. (March)

Wendy Roselinsky (Jay W. Jeffers Elementary School: Las Vegas, NV); David T. Crowther (University of Nevada: Reno, NV); Maria Dufek (Jay W. Jeffers Elementary School: Boulder City, NV); Amy Bentel (Jay W. Jeffers Elementary School: Las Vegas, NV); Lori A. Fulton (Jay W. Jeffers Elementary School: Las Vegas, NV) (2008). Science for English Language Learners (ELL) in the Elementary Classroom. A presentation at the National Science Teachers Association (NSTA) National Conference on Science Education. Boston, MA. (March)

Amy Marder (Animal Rescue League of Boston: Boston, MA); Suzanne Flynn (Cambridge College: Cambridge, MA); Lynne Cherry (Children's Book author / Illustrator: Thurmont, MD); David T. Crowther (University of Nevada: Reno, NV); Juliana Texley (Palm Beach Community College: Boca Raton, FL) (2008). Love a pet, study a pet: A panel discussion on anthropomorphism. A presentation at the National Science Teachers Association (NSTA) National Conference on Science Education. Boston, MA. (March)

Bluhm, J. & Crowther, D. (2008). Affective outcomes of guided inquiry-based science for English language learners. A presentation for the international conference for the Association of Science Teacher Education. St. Louis, MO. (January).

Crowther, D. (2008). Guided inquiry in general biology for education majors: Longitudinal study. A presentation for the international conference for the Association of Science Teacher Education. St. Louis, MO. (January).

Crowther, D. (2007). Science and Language Learning – Natural Partners. A presentation for the Pennsylvania Science Teachers Association (PSTA) Conference in Science Education. Hershey, PA. (December).

Crowther, D. (2007). Inquiry Science for the English Language Learner In the Elementary Classroom. A presentation for the National Science Teachers Association (NSTA) Western Regional Conference in Science Education. Denver, CO. (November).

Crowther, D., & Cannon, J. (2007). Edible Earth Science for Elementary and Middle Level. . A presentation for the National Science Teachers Association (NSTA) Western Regional Conference in Science Education. Denver, CO. (November).

Crowther, D. (2007). Light, Crimes, Magnetism, Polymers, and Disease? . A presentation for the National Science Teachers Association (NSTA) Western Regional Conference in Science Education. Denver, CO. (November).

Cannon, J. & Crowther, D. (2007). Snapshots of Inquiry: Using Reflective Technologies to Improve Elementary Student Achievement. . A presentation for the National Science Teachers Association (NSTA) Western Regional Conference in Science Education. Denver, CO. (November).

Crowther, D. (2007). Super Wow Neat Science. A Presentation for the California Science Teachers Association (CSTA). Long Beach, CA. (October).

Crowther, D., Fathman, A., Vila, J. (2007). Science for English Language Learners. A presentation for the National Science Foundation (NSF) dissemination conference on Research in English Language Learning. National Science Teachers Association (NSTA) National Conference in Science Education. St. Louis, MO. (March).

Crowther, D., Cannon, J. & Lederman, J. (2007). Publishing your research and teaching ideas in CESI Science. A presentation for the National Science Teachers Association (NSTA) National Conference in Science Education. St. Louis, MO. (March).

Crowther, D., Barman, C., (2007). Analyzing, reviewing and selecting outstanding science trade books for k-12 classrooms. A presentation for the National Science Teachers Association (NSTA) National Conference in Science Education. St. Louis, MO. (March).

Crowther, D., Cannon, J., Cannon, K. & Loftin, L (2007). Edible Elementary Earth Science: Activities and action Research. A presentation for the National Science Teachers Association (NSTA) National Conference in Science Education. St. Louis, MO. (March).

Crowther, D. (2007). Super, Wow, Neat Science – Educational Innovations. An exhibitors workshop for the National Science Teachers Association (NSTA) National Conference in Science Education. St. Louis, MO. (March).

Crowther, D. (2007). Traditional Versus an Inquiry-Teaching Format in Introductory Biology for Nonmajors: A Six-Year Study. Presentation at the American Educational Research Association (AERA). Chicago, IL (April).

Akerson, V.; Britsch, J., Shepardson, D., Richards, J., Shea, K., Crowther, D. (2007). Interdisciplinary Language Arts and Science Instruction in Elementary Classrooms: Applying Research to Practice. Presentation at the American Educational Research Association (AERA). Chicago, IL (April).

Black, K., Akerson, V., Aram, R., Bard, B., Butler, M., Cannon, J., Crowther, D., Hand, B., Morrison, J., Powell, D. Shymansky, J., & Yore, L. (2006). Helping educators apply appropriate writing-in and writing - to learn science strategies. An extended (3 hour) presentation at the Association for Science Teacher Education (ASTE) International Conference. Portland, OR. January.

Crowther, D., Fathman, A. Colburn, A., Olson, J. Cannon, J., Lederman, J. & Lederman, N. (2006). Teaching science to English language learners. A presentation at the Association for Science Teacher Education (ASTE) International Conference. Portland, OR. January.

Crowther, D., Willden, J., Gubanich, A., & Cannon, J. (2006). A five year comparison of instruction format: Traditional lecture approach vs. inquiry based introductory biology courses for elementary majors. A presentation at the Association for Science Teacher Education (ASTE) International Conference. Portland, OR. January.

Van Sickle, M., Baker, D., Piburn. M., Rhoton, E. Czerniak, C. Cannon, J., Crowther, D. (2006). Publishing in Science Education Journals. (an invited Panel Discussion). Presentation at the International conference for the Association for Science Teacher Education (ASTE). A presentation at the Association for Science Teacher Education (ASTE) International Conference. Portland, OR. January.

Crowther, D.T. & Fathman, A. (2006). Science for English Language Learners. A Short Course for the National Science Teachers Association National Conference in Science Education. Anaheim, CA. April 5 – 9.

Bard, B. & Crowther, D.T. (2006). Analyzing Children's Scientific Drawings for Conceptual Understanding. A presentation for the National Science Teachers Association National Conference in Science Education. Anaheim, CA. April 5 – 9.

Pratt, N.; Crowther, D.T.; Wojonowski, D.; Royce, C.; McLelland, C.; & Curton, H. (2006). Outstanding Science Trade Books 2006: Evaluating and Identifying Excellent Books for Your Classroom. A presentation for the National Science Teachers Association National Conference in Science Education. Anaheim, CA. April 5 – 9.

Brock, R. & Crowther, D.T. (2006). Exciting Kids about Nature Through Elk Calling and Clubs. A presentation for the National Science Teachers Association National Conference in Science Education. Anaheim, CA. April 5 – 9.

Crowther, D.T.; Cannon, J. & Loftin, L. (2006). Old Black Fly and Communicable Disease. A presentation for the National Science Teachers Association National Conference in Science Education. Anaheim, CA. April 5 – 9.

Saul, W., Klentschy, M., Reardon, J., Thomas, J., Crowther, D., & Royce, C. (2006). Science at the Center for Reading Success: A Professional Learning Institute for the National Science Teachers Association Regional Conference in Science Education. Omaha, NE. October 18.

Crowther, D. (2006). Elementary Science and the English Language Learner. Keynote address for the Council for Elementary Science International (CESI) breakfast. At the National Science Teachers Association Regional Conference in Science Education. Omaha, NE. October 20.

Crowther, D. T. (2006). Super, Wow, Neat... E.I. Science. A presentation at the National Science Teachers Association Regional Conference in Science Education. Omaha, NE. October 20.

Rosebery, A., Garcia, E., Lee, O., Crowther, D., Fathman, A., Vila, J., & Klentschy, M. (2006). Science and English Language Learners: Research, Practical Approaches, and Policy Directions for Classroom Teachers, School and District Administrators, and University Teacher Educators. A Professional Learning Institute for the National Science Teachers Association Regional Conference in Science Education. Baltimore, MD. November 1.

Crowther, D., Cannon, J. & Loftin, L. (2006). Edible Elementary Earth Science. A presentation for the National Science Teachers Association (NSTA) Western Regional Conference on Science Education in Salt Lake City, Utah.(December 7). (over 150 in attendance).

Cannon, J., Crowther, D., & Loftin, L. (2006). Catapults, Levers and Pulleys: Elementary Math and Science Collide. A 3 hour Short Course for the National Science Teachers Association (NSTA) Western Regional Conference on Science Education in Salt Lake City, Utah.(December 7). (42 in attendance for the extended workshop)

Crowther, D. (2006). Super, Wow, Neat E.I. Science. (2006). A presentation for the National Science Teachers Association (NSTA) Western Regional Conference on Science Education in Salt Lake City, Utah.(December 7). (over 150 in attendance). This session was done with help from John Cannon, Kelly Cannon, Lou Loftin & George Kerr.

Crowther, D. T., & Reichardt, B. (2005). How English Language Learners Learn Science Through Inquiry Based Science Lessons. Presentation at the International conference for the Association for Science Teacher Education (ASTE). Colorado Springs, CO. January.

Crowther, D. T. & Cannon, J. (2005). Development and Implementation of Performance Assessment: Science Teaching Artifacts and NCATE Professional Standards. Presentation at the International conference for the Association for Science Teacher Education (ASTE). Colorado Springs, CO. January.

Black, K., Akerson, V., Aram, R., Butler, M., Crowther, D., Cannon, J., Hand, B., Morrison, J. Shymansky, J., & Yore, L. (2005). Developing Science Literacy with Writing in Science and Writing to Learn Science. (An Invited Embedded Workshop - 3 hours). Presentation at the International conference for the Association for Science Teacher Education (ASTE). Colorado Springs, CO. January.

Van Sickle, M., Baker, D., Piburn, M., Rhoton, E., Czerniak, C., Cannon, J., Crowther, D. (2005). Publishing in Science Education Journals. (an invited Panel Discussion). Presentation at the International conference for the Association for Science Teacher Education (ASTE). Colorado Springs, CO. January.

Crowther, D. & Stegman, C. (2004). Integrating Science and Language Arts: Science Notebooks and strategies from classroom to college. Presentation at the *Association for the Research in Science Teaching (AETS)* National Conference, Nashville, TN. (January).

Cannon, J. & Crowther, D. (2004). Preserving our intellectual history: A Panel discussion of the history and development of the learning cycle. Presentation at the *Association for the Research in Science Teaching (AETS)* National Conference, Nashville, TN. (January).

Crowther, D. & Cannon, J. (2004) Harry Potter Science Made Elementary. *National Association of Science Teachers (NSTA)* National Conference. Atlanta, GA. (April).

Crowther, D., Cannon, J., & Vila, J. (2004). The ESL Learner and Science Made Elementary. *National Association of Science Teachers (NSTA)* National Conference. Atlanta, GA. (April).

Crowther, D. & Cannon, J. (2004). Silly Sounds and Waves Made Elementary. *National Association of Science Teachers (NSTA)* National Conference. Atlanta, GA. (April).

Goldston, J., Lederman, J. & Crowther, D. T. (2004). CESI Make and Take Elementary Extravaganza. *National Association of Science Teachers (NSTA)* National Conference. Atlanta, GA. (April).

Crowther, D. & Cannon, J. (2004). Elementary Science Methods and the Learning Cycle. Presentation at the *National Science Teachers Association (NSTA)* Western Regional Conference, Seattle, WA. (November).

Crowther, D. (2004). Classification, Potions, and Levitation: Harry Potter Science. Presentation at the *National Science Teachers Association (NSTA)* Western Regional Conference, Seattle, WA. (November).

Robertson, C., Stegman, C., Willden, J. & Crowther, D. (2004). Health and Experimental Design – I think I'm Gonna Die. Presentation at the *National Science Teachers Association (NSTA)* Western Regional Conference, Seattle, WA. (November).

Willden, J., Crowther, D., Gubanich, A., & Cannon, J. (2003) A Comparison of Instructional Approach: Inquiry vs. Traditional Lecture in Introductory Biology. Presentation at the *National Association of Research in Science Teaching (NARST)* National Conference, Philadelphia, PA., (March).

Crowther, David T.; Cannon, John; & Vila, Joaquin. (2003) .Science For All: Addressing the Needs of ESL Learners in the Elementary Science Classroom. *National Association of Science Teachers (NSTA)* National Conference. Philadelphia, PA, (March).

Crowther, David T., Gubanich, Alan; Willden, Jennifer; Cannon, John; Loftin, Lou; & Stegman, Camille.

(2003) Webs, Sorts & Survival: Activities from an Introductory Biology course for Elementary Education Majors. *National Association of Science Teachers (NSTA) National Conference*. Philadelphia, PA, (March).

Crowther, D. T. (2003). CESI Make and Take Elementary Extravaganza. *National Association of Science Teachers (NSTA) National Conference*. Philadelphia, PA, (March).

Willden, J., Crowther, D., Gubanich, A., & Cannon, J. (2003) A Comparison of Instructional Approach: Inquiry vs. Traditional Lecture in Introductory Biology. Presentation at the *Association for the Research in Science Teaching (AETS) National Conference*, St. Louis, MO., (January).

Wangsgard, N; Crowther, D. T.; & Cannon John. (2003). "The Wizards Lab", An Informal and Formal Science Program Base-Line Assessment@ Presentation at the *Association for the Research in Science Teaching (AETS) National Conference*, St. Louis, MO., (January).

Crowther, D., & Cannon, J. (2002). Elementary Physics: Film Cans & Spool Races - Potential & Kinetic Energy. *National Association of Science Teachers (NSTA) Regional Conference*. Albuquerque, NM. (December).

Crowther, D., Gubanich, A. & Willden, J. (2002). Webs, Sorts & Survival: Elementary Life Science Activities from Biology 110. *National Association of Science Teachers (NSTA) Regional Conference*. Portland, OR. (November).

Crowther, D. & Cannon J. (2002). Assessing the Elementary Inquiry Science Lesson: Introducing the 5 E Rubric. Delta Rural Systemic Initiative (DRSI) Annual conference. Jackson, MS. (November).

Cannon J., & Crowther, D. (2002). Elementary Physics: Film Cans & Spool Races - Potential & Kinetic Energy. Delta Rural Systemic Initiative (DRSI) Annual conference. Jackson, MS. (November).

Crowther, D. & Cannon J. (2002). Harry Potter Science: Further Integration of Science and Literature. Delta Rural Systemic Initiative (DRSI) Annual conference. Jackson, MS. (November).

Crowther, D., & Cannon, J. (2002). Elementary Physics: Film Cans & Spool Races - Potential & Kinetic Energy. *National Association of Science Teachers (NSTA) Regional Conference*. Louisville, KY. (October).

Crowther, D., Cannon, J., & Vila, J.(2002). Assessing science and ESL in the Elementary Inquiry Science Classroom. A presentation at Salisbury State University. Salisbury, MD. (June).

Cannon, J., Crowther, D., & Vila, J. (2002) Assessment in the ESL Elementary Science Classroom. Teachers of English to Speakers of Other Languages (TESOL) International Conference. Salt Lake City, UT. (April).

Crowther, D. T. (2002). CESI Make and Take Elementary Extravaganza. *National Association of Science Teachers (NSTA) National Conference*. San Diego, CA. (March).

Crowther, D., Cannon, J., Loftin, L., Willden, J., Gubanich, A. (2002). Levers, Catapults & Pulleys: Elementary Physics made fun. *National Association of Science Teachers (NSTA) National Conference*. San Diego, CA. (March).

Willden, J., Crowther, D., Gubanich, A., & Cannon, J. (2002). A quantitative comparison of instruction format of undergraduate introductory level content biology courses: Traditional lecture approach vs. inquiry based for education majors. Paper presented at the Annual Meeting of the Association for the Education of Teachers of Science (AETS). Charlotte, N.C. (January).

Crowther, D. & Cannon, J. (2002). Professional development models: A comparison of duration and effect. Paper presented at the Annual Meeting of the Association for the Education of Teachers of Science (AETS). Charlotte, N.C. (January).

Luft, J., Cannon, J., Crowther, D., Niess, M., Lederman, N., Enochs, L., Pilburn, M., Falconer, K., & Coburn, A. (2002). *Publishing in science education journals*. Paper & panel discussion at the Annual Meeting of the Association for the Education of Teachers of Science (AETS). Charlotte, N.C. (January).

Crowther, D., & Cannon, J. (2001). Wild and wacky polymers for the elementary classroom. *National Association of Science Teachers (NSTA) Regional Conference*. Memphis, TN. (December).

Vila, J., Cannon, J., & Crowther, D. (2001). Integrating the teaching of science and ESL through collaborative inquiry: A constructivist perspective on the integration of language arts and content area knowledge. Presentation at the Puerto Rico Teachers of English to Speakers of Other Languages (PRTESOL) International Conference. San Juan, Puerto Rico. (November).

Crowther, D., Cannon, J., Armfield, B., Watts, B., & Powell, A. (2001). Inquiry activities and the nature of science in the physical sciences. Presentation at the Delta Rural Systemic Initiative (DRSI) Annual 3 State Conference. Jackson, MS. (November).

Crowther, D., Cannon, J., Armfield, B., Watts, B., & Powell, A. (2001). Inquiry activities and the nature of science in the life and earth sciences. Presentation at the Delta Rural Systemic Initiative (DRSI) Annual 3 State Conference. Jackson, MS. (November).

Crowther, D. & Cannon, J. (2001) WOW: Wild and wonderful elementary life science activities. *National Association of Science Teachers (NSTA) Regional Conference*. Columbus, OH. (November).

Zike, D., Crowther, D., & Cannon, J. (2001). Science graphs and tables in context. *National Association of Science Teachers (NSTA) Regional Conference*. Columbus, OH. (November).

Cannon, J. Loftin, L. & Crowther, D. (2001). Textiles and Chemistry: Tie Dye Science. Short Course. *National Association of Science Teachers (NSTA) Regional Conference*. Salt Lake City, UT. (October).

Crowther, D., Gubanich, A., & Willden, J. (2001) WOW: Wild and wonderful elementary life science activities. *National Association of Science Teachers (NSTA) Regional Conference*. Salt Lake City, UT. (October).

Crowther, D., Tolman, M., Cannon, J. & Loftin, L. (2001). CESI Elementary make and take science extravaganza. *National Association of Science Teachers (NSTA) Regional Conference*. Salt Lake City, UT. (October).

Crowther, D., Cannon, J., & Vila, J. (2001). Teaching science and ESL through collaborative inquiry and contextual learning. A presentation at Salisbury State University. Salisbury, MD. (June).

Cannon, J., Crowther, D. & Vila, J. (2001). Teaching science and ESL through collaborative inquiry. Paper presented at the Teachers of English to Speakers of Other Languages (TESOL) International Conference. St. Louis, MO. (March).

Crowther, David T. & Stein, M.(2001) CESI Make and Take and Elementary Extravaganza. *National Association of Science Teachers (NSTA) National Conference*. St. Louis, MO. (March).

Crowther, David T., & Cannon, John R. (2001) Catapults & Pulleys: Integrating physics into the entire elementary curriculum. *National Association of Science Teachers (NSTA) National Conference*. St. Louis, MO. (March).

Nye, B., Crowther, D., Cannon, J. & Loftin L. (2001) Bill Nye Live: A day of inquiry activities with Bill Nye. Full day presentation / workshop at the *National Association of Science Teachers (NSTA) National Conference*. St. Louis, MO. (March).

Crowther, D., Cannon, J., Lederman, N., & Curtis, B. (2001). *Goals 2000 and action research: A viable plan for teachers*. Paper presented at the Annual Meeting of the Association for the Education of Teachers of Science (AETS). Costa Mesa, CA. January.

Cannon, J. & Crowther, D. (2001). *Analysis of the first readers survey of the electronic journal of science education*. Paper presented at the Annual Meeting of the Association for the Education of Teachers of Science (AETS). Costa Mesa, CA. January.

Luft, J. Crowther, D., Cannon, J., Niess, M., Enochs, L., Pilburn, M., Falconer, K., & (2001). *Publishing in science education journals*. Paper & panel discussion at the Annual Meeting of the Association for the Education of Teachers of Science (AETS). Costa Mesa, CA. January.

Crowther, D.T., Cannon, J.R., Loftin, L. (2000). Physics Smorgasbord: Activities for the elementary classroom. *National Association of Science Teachers (NSTA) Regional Conference*. Phoenix, AZ. (December)

Crowther, D. T., Cannon J. R., & Goldstein, M. J. (2000). Physics activities for the elementary classroom. *National Association of Science Teachers (NSTA) Regional Conference*. Baltimore, MD. (November).

Vilá, J., & Crowther, D. (2000). Integrating language and content science in the elementary science classroom. Teachers of English to speakers of other languages (TESOL) International Conference. Victoria, British Columbia, Canada. (March).

Crowther, D., Vilá, J., & Cannon, J. (2000). Science For All - Multicultural perspectives for elementary science. *National Association of Science Teachers (NSTA) National Conference*. Orlando, FL (March).

Cannon, J. & Crowther, D. (2000). A day at the races: Elementary physics fun. *National Association of Science Teachers (NSTA) National Conference*. Orlando, FL (March).

Crowther, D., Cannon, J., & Loftin, L. (2000). Wild and wacky polymers. *National Association of Science Teachers (NSTA) National Conference*. Orlando, FL (March).

Crowther, David T. & Cannon, John R. (2000). Professional Development: What is working in Nevada. Paper presented at the Annual Meeting of the *Association for the Education of Teachers of Science (AETS)*. Akron, OH. January.

Cannon, J. & Crowther, D. (2000). Electronic publishing in the 20th century. Poster presentation at the Annual Meeting of the *Association for the Education of Teachers of Science (AETS)*. Akron, OH. January.

Abell, S., Berg, C., Cannon, J., Crowther, D., Czerniak, C., Enochs, L., Gess-Newsome, J., & Lederman, N. (2000). Publishing in science education journals. Panel presentation at the Annual Meeting of the *Association for the Education of Teachers of Science (AETS)*. Akron, OH. January.

Crowther, David T. & Goldstein, M. J. (1999) CESI Make and Take and Elementary Extravaganza. *National Association of Science Teachers (NSTA)* Regional Conference. Reno, NV (December).

Vilá, J., & Crowther, D. (1999). Science For All - Addressing the needs of ESL students in the elementary classroom. *National Association of Science Teachers (NSTA)* Regional Conference. Reno, NV (December).

King, Janet; Duncan, Belinda; Dean, Teri; Scaglione, Ann & Crowther, David T. (1999). Ziplock Zymurgy. *National Association of Science Teachers (NSTA)* Regional Conference. Reno, NV (December).

Vilá, J., & Crowther, D. (1999). Science For All - Multicultural Approaches to Teaching Science in the Schools. *California Teachers of English to Speakers of Other Languages (CATESOL)* Regional Conference. Reno, NV (April).

Crowther, David T. & Cannon, John R. (1999). Elementary Science Practicums: How much is enough - 3rd year of a longitudinal study. *National Association of Research in Science Teaching (NARST)* National Conference, Boston, MA, March.

Cannon, John R. & Crowther, David T. (1999) Electronic Publishing in the 21st. Century - Its Impact on Scholarly Writing, Promotion, and Tenure in Higher Education. Presentation at the *National Association of Research in Science Teaching (NARST)* National Conference, Boston, MA, March.

Crowther, D.T. & Malone, M. (1999) Put your best life science ideas in print: CESI solicits activities for its ninth source book. *National Association of Science Teachers (NSTA)* National Conference. Boston, MA. (March)

Crowther, David T; Cannon, John R; & Lou Loftin. (1999) A Day at the Races - pHestival of pPhysical Science. *National Association of Science Teachers (NSTA)*. National Conference. Boston, MA. (March)

Ochs, G., Price, E., Crowther, D., Robinson, M., & Kimbal, D. (1999). Nevada Operation Chemistry. *National Association of Science Teachers (NSTA)*. National Conference. Boston, MA. (March)

Cannon, John R. & Crowther, David T. (1999) Electronic Publishing in the 21st. Century - Its Impact on Scholarly Writing, Promotion, and Tenure in Higher Education. Presentation at the National Conference for the *Association for the Education of Teachers in Science (AETS)*. Austin, TX. (January).

Crowther, David T. & Cannon, John R. (1999). Elementary Science Practicums: How much is enough - 3rd year of a longitudinal study. Presentation at the National Conference for the *Association for the Education of Teachers in Science (AETS)*. Austin, TX. (January).

Malone, M., & Crowther, D. (1998) Put your best life science ideas in print: CESI solicits activities for its ninth sourcebook. *National Association of Science Teachers (NSTA)* Regional Conference. Albuquerque,

NM. (December).

Price, E.; Ochs, G.; Crowther, D.; Robinson, M.; & Kimbal, D. (1998). Nevada Operation Chemistry. *National Association of Science Teachers (NSTA) Regional Conference*. Albuquerque, NM. (December).

Robinson, Mike R.; Crowther, David T.; & Gubanich, Alan. (1998). A Comparison of environmental science literacy among science education majors and biology and chemistry science majors. *National Association of Biology Teachers (NABT) National Convention*. Reno, NV. (November).

Crowther, David T.; Cannon, John R.; Robinson, Mike R.; Ochs, George.; Price, Elizabeth.; Loftin, Louis; & Kimbal, Dana Sue. (1998). Wild & Wacky Polymers. *National Association of Science Teachers (NSTA) Regional Conference*. Seattle, WA. (October).

Crowther, David T., Cannon, John R., & Lou Loftin. (1998) Halloween & Holiday Science. *National Association of Science Teachers (NSTA) Regional Conference*. Seattle, WA. (October).

Ochs, George; Crowther, David T.; Price, Elizabeth. & Kimbal, Dana Sue. (1998). Operation Chemistry in Nevada. *National Association of Science Teachers (NSTA) Regional Conference*. Seattle, WA. (October).

Crowther, David T.; Cannon, John R.; Robinson, Mike R.; Ochs, George.; Price, Elizabeth.; Loftin, Louis; & Kimbal, Dana Sue. (1998). Wild & Wacky Polymers. *National Association of Science Teachers (NSTA) National Conference*, Las Vegas, NV. (April).

Crowther, David T. & Malone, Mark. (1998). Put your best Life Science activities into print: CESI solicits activities for its ninth sourcebook. *National Association of Science Teachers (NSTA) National Conference*, Las Vegas, NV. (April).

Ochs, George; Crowther, David T.; Price, Elizabeth. & Kimbal, Dana Sue. (1998). Operation Chemistry in Nevada. *National Association of Science Teachers (NSTA) National Conference*, Las Vegas, NV. (April).

Peterson, Jon.; Crowther, David T.; Bonnstetter, Ronald J.; Cannon, John R.; & Thomas, Julie (1998) Jackpot - 40 physical, earth & life science demonstrations for your classroom. *National Association of Science Teachers (NSTA) National Conference*, Las Vegas, NV. (April).

Bonnstetter, Ronald J. & Crowther, David T. (1998) Inquiry learning and its role in new curriculum projects. *National Association of Science Teachers (NSTA) National Conference*, Las Vegas, NV. (April).

Crowther, David T., John R. Cannon (1998). How much is enough? Preparing elementary science teachers through science practicum. Presentation at the National Conference for the Association for the Education of Teachers in Science (AETS). Minneapolis, MN. January.

Cannon, J. & Crowther, D. (1998). Electronic publishing in the 21st. Century: It's impact on scholarly writing and promotion and tenure. Presentation at the National Conference for the Association for the Education of Teachers in Science (AETS). Minneapolis, MN. January.

Crowther, David T., Cannon, John R. & Loftin, Lou (1997) Zymurgy = Fermentation Fun. *National Association of Science Teachers (NSTA) Regional Conference*. Denver, CO. (October)

Crowther, David T. & Cannon, John R. (1997) Holiday Science and other AHooks@ for an integrated

curriculum. *National Association of Science Teachers (NSTA) Regional Conference*. Denver, CO. (October)

Cannon, John R. & Crowther, David T. (1997) Electronic Publishing in the 21st. Century - Its Impact on Scholarly Writing, Promotion, and Tenure in Higher Education. *National Association of Science Teachers (NSTA) Regional Conference*. Denver, CO. (October)

Crowther, David T. (1997) Chemical Reaction Chambers. Council for Elementary Science Internation (CESI) Make it & Take it Workshop. *National Association of Science Teachers (NSTA) Conference*, New Orleans, LA. (April).

Crowther, David T.; Bonnstetter, Ronald J.; Cannon, John R.; Thomas, Julie & Peterson, Jon (1997) Old Black Fly - And The Transmission Of Disease. *National Association of Science Teachers (NSTA) Conference*, New Orleans, LA. (April).

Crowther, David T.; Bonnstetter, Ronald J.; Cannon, John R. & Loftin, Lou (1997) Zymurgy = Fermentation Fun. *National Association of Science Teachers (NSTA) Conference*, New Orleans, LA. (April).

Crowther, David T., & Bonnstetter, Ronald J. (1997) Experiences and Attitudes of Elementary Preservice Teachers as They Experience Biology 295 - A Multiple Case Study & Substantive Theory. *National Association of Research in Science Teaching (NARST) Conference*, Chicago, IL. (March).

Cannon, John R., & Crowther, David T. (1997). An Autopsy of an Adoption of a science curriculum. *National Association of Research in Science Teaching (NARST) Conference*, Chicago, IL. (March).

Crowther, David T., Bonnstetter, Ronald J. (1997) *Experiences and Attitudes of Elementary Preservice Teachers as They Experience an Alternative Content Biology Course - A Qualitative Multiple Case Study and Substantive Theory*. Presentation at the National Conference for the Association for the Education of Teachers in Science (AETS). Cincinnati, OH. January.

Crowther, David T. (1996) *Kitchen Bio-Chemistry*. A presentation for the National Faculty in Harrisburgh, IL. (October)

Crowther, D. T., & Cannon, J. (1996) Water Water Everywhere. Regional National Science Teachers Association (NSTA) Conference, Phoenix, AZ. (October)

Crowther, D. T. (1996) Experiences and Attitudes of Elementary Preservice Teachers as They Experience Biology 295 - A Qualitative Study. Regional National Science Teachers Association (NSTA) National Association of Research in Science Teaching (NARST) session at NSTA Conference, Phoenix, AZ. (October)

Crowther, David T. (1996) *Kitchen Chemistry*. A presentation for the National Faculty in Murphysboro, IL. (May)

Crowther, David T. (1996) *Kitchen Bio-Chemistry*. A presentation for the National Faculty In Lake Village, Arkansas. (March 3-6)

Crowther, D.T., & Jacobitz, K. (1996). Of Pancakes and Chemistry. Presentation at the national conference for the National Science Teachers Association (NSTA). St. Louis, MO. (March).

Crowther, D.T., & Bonnstetter, R. (1996). Attitudes and Experiences of Preservice Elementary \ Middle Level Teachers as They Engage in Alternative Content Science Courses. Presentation at the national conference for the National Association for Research in Science Teaching (NARST). St. Louis, MO. (March).

Crowther, D.T. & Bonnstetter, R. (1996). Content Biology in Preservice Instruction - A qualitative study and innovative program. Presentation at the national conference for the Association for the Education of Teachers in Science (AETS). Seattle, WA. (January).

Crowther, D.T., & Jacobitz, K. (1995). H2O = Hands-on & Heads-on Content Biology for Elementary/Middle Level Educators. Presentation at the National conference for the National Association of Biology Teachers (NABT). Phoenix, AZ. (October).

Crowther, D.T., Jacobitz, K. & Veomett, G. (1995). Biology 295: Hands-on biology for elementary education majors. Presentation at the Annual Nebraska Association for Teachers of Science (NATS). Camp Calvin Crest, Fremont, NE. (October).

Crowther, D.T., Barth, D., Ruegge, S., Hagge, K & Woodburn, A. (1995). When Children's Literature Meets Science. Presentation at the regional conference for the National Association for Science Teachers (NSTA). Salt Lake City, UT. (October).

Crowther, D.T., Jacobitz, K., & Kelter, P. (1995). In Your fridge and Under Your Sink: Hands-on Chemistry for Elementary Teachers. Presentation at the regional conference for the National Association for Science Teachers (NSTA). Salt Lake City, UT. (October).

Crowther, D.T., & Jacobitz, K. (1995). Hands-on Biology for the Elementary Classroom. Presentation at the regional conference for the National Association for Science Teachers (NSTA). Salt Lake City, UT. (October)

Crowther, D. (1995) Polymers to Ice Cream - Mixing content and pedagogy. Presentation for the bi-annual meeting of POLARIS (Alaska's Science reform conference of secondary and middle level teachers). Anchorage, Alaska. (September)

Wilcoxson, K., Crowther, D.T., Landon, J., Kean, B., Gatewood, K., & Koba, S. (1995). Constructivism - A common denominator of model programs in Nebraska. Presentation at the national conference for the National Association for Science Teachers (NSTA). Philadelphia, PA. (March).

Crowther, D.T., Jacobitz, K., & Landon, J. (1995). Hands-on, Heads-on Content Biology. Presentation at the national conference for the National Association for Science Teachers (NSTA). Philadelphia, PA. (March).

Crowther, D.T., Jacobitz, K., & Landon, J. (1994). Hands-on Heads-on Content Biology. Presentation at the Midwestern area conference of the National Association of Science Teachers (NSTA). Las Vegas, NV. (December).

Jacobitz, K., Crowther, D.T., & Landon, J. (1994). Biology 295 - Hands-on Biology for Elementary Education Majors. Poster Session at the American Association for Higher Education (AAHE) National conference. Washington DC. November.

Jacobitz, K., Crowther, D.T., & Landon, J. (1994). Biology 295: Hands-on biology for elementary education majors. Presentation at the Annual Nebraska Association for Teachers of Science (NATS). Camp Calvin Crest, Fremont, NE. (October).

Davies, E., & Crowther, D.T. (1994). Biology 295: Hands-on biology for elementary education majors. Principle investigators meeting for Howard Hughes Medical Institute Grant (HHMI). (October).

Koba, S., Gatewood, K., Torek, F., Kean, B., & Crowther, D. (1994). SPARCS - Solving Problems and Revitalizing Curriculum in Science. An integrated approach to learning. National Science Teachers Association (NSTA) National Conference. Anaheim, CA. (March).

Crowther, D.T., Landon, J., Jacobitz, K. (1994). Biology 295 Hands-on Biology for Elementary Education Majors. Nebraska Math and Science Teleconference. Lincoln, NE. (April).

Crowther, D.T. & Leukel, J. (1993) Metacognition and Cooperative Learning - A group Think. C.L.U.E. Area Conference. S.L.C., UT. (March).

Crowther, D.T., & Harris, R.C. (1992) Metacognition: The Effects of Strategy Instruction on Reflective Thinking and Pedagogical Skills in Preservice Teachers. Paper presented at regional conference of Association of Supervision and Curriculum Development. S.L.C., UT.

Leukel, J. & Crowther D.T. (1991). Cooperative Learning and Mathematics. Presented at Utah Association for Teachers of Math at U.E.A conference. S.L.C., UT.

Harris, R.C, & Crowther, D.T. (1991). Metacognition: Creating Mind Windows in the Classroom. Utah Association for Supervision and Curriculum Development. (U-ASCD) S.L.C., UT.

State Presentations (*) indicates peer reviewed formal presentations.

(*)Crowther, D. (2012). Science for ELL: Sheltered content instruction for inquiry science. A presentation for the Southern Nevada Math and Science Conference. Las Vegas, NV (January)

(*)Crowther, D & Loftin L. (2012) If it sinks like a rock... Discovering Density 1.0: Model STEM activities for the K-8 classroom. A presentation for the Southern Nevada Math and Science Conference. Las Vegas, NV (January)

Crowther, D. (Moderator), Brancamp, D., Fritsen, C., Keppleman, Knecht, G., E., Lamberg, T., Oates, M., Peterson, L., Vineyard, R Wells, B & Wang, E. (2011). Science, Technology, Engineering, and Mathematics (STEM) Implementation in Schools. Panel Discussion. Nevada State Science Teachers Association (NSSTA) Conference. (November)

(*)Crowther, D. (2011). Dealing with Density 1.0: Activities to support STEM in the classroom. A presentation at the California Science Teachers Association (CSTA). Pasadena, CA. (October).

Abernathy, T., Burnham, M., Crowther, D., & Horvath, N. (2011) Taking advantage of a good crisis: Transforming undergraduate teacher preparation. A presentation for the Nevada Associate of Teacher Education (NVATE). Reno, NV. (October)

(*)Crowther, D (2010). *Science and ELL: Modifications to SIOP for Inquiry Teaching*. A presentation at the Southern Nevada Math Science Conference. Las Vegas, NV. (January)

(*Loftin, L., Crowther, D. & Cannon, J. (2009). *Integrating Math and Science through Density*. A presentation at the Southern Nevada Math Science Conference. Las Vegas, NV. (January)

(*Crowther, D. Cannon J. & Loftin, L. (2010). *Edible Earth Science: Lessons from the Nevada Earth Space Science Initiative (NESSI)*. A presentation at the Southern Nevada Math Science Conference. Las Vegas, NV. (January)

(*Stegman, C. Willden, J. & Crowther, D. (2010) *Pirate Science: Lessons in Density, Buoyancy, Navigation, and Motion*. A presentation at the Southern Nevada Math Science Conference. Las Vegas, NV. (January)

(*Crowther, D. T., Wallstrum, R. (2009) "Effective Strategies for Teaching Science to K-8 English Language Learners in the Classroom", California Science Teachers Association, Palm Springs, CA. (October).

(*Crowther, D. T., Fulton, L., (2009) "English Language Learners and Science Notebooks", Accepted, Southern Nevada Math Science Conference, Las Vegas, NV. (January).

(*Crowther, D. T., (2009) "Balloons, Diapers & Gak – Oh My! Inquiry and Polymers", California Science Teachers Association, Palm Springs, CA. (October).

(*Crowther, D. T., Wallstrum, R., Crowther, T., Louisiana MSP Training, (2009). Developing and Integrating Science and Math Experiences for English Language Learners. A Professional Development Workshop for MSP Coordinators in Louisiana.", Invited, State of Louisiana, Baton Rouge, LA. (July).

(*Crowther, D. T., Wallstrum, R., (2009) Arizona MSP Training, Academic, "Strategies for Teaching Science to English Language Learners Using Full Option Science System (FOSS)", Invited, Full Option Science System / Phoenix Public Schools, Phoenix, AZ. (May).

(*Loftin, L., Crowther, D. T., Cannon, J. R., (2009) "Integrating Math and Science through Density", Accepted, Southern Nevada Math Science Conference, Las Vegas, NV. (January).

(*Loftin, L., Crowther, D. T., Cannon, J. R., (2009) "Up, Up, and Away: Aerostatics", Accepted, Southern Nevada Math Science Conference, Las Vegas, NV. (January).

Crowther, D. (2008). *Edible Earth Science for Elementary Classrooms in Nevada: A Review of the Nevada Earth Space Science Initiative*. A presentation at the Nevada Mining Association Minerals Workshop. Tonopah, NV. (July).

*Crowther, D., Cannon, J., Loftin, L., Brock, R., & Cannon, K. (2008). *Edible Earth Science and the Nevada Earth / Space Science Initiative (NESSI)*. A Presentation for the Nevada State Science Teachers Association (NSSTA). Las Vegas, NV. (Feb)

*Crowther, D., Cannon, J., Loftin, L., Brock, R., & Cannon, K. (2008). *Chemistry, Inquiry and Tie Dye Science*. A Presentation for the Nevada State Science Teachers Association (NSSTA). Las Vegas, NV. (Feb)

*Crowther, D., & Loftin, L. (2007). *Sensational Seeds Sort*. A Presentation at the Northern Nevada Math and Science Conference. Sparks High School. (Oct.)

*Crowther, D. & Cannon, J. (2007). Edible earth movements and Nevada. A presentation at the Nevada Mining Association (NMA) Minerals Education conference. Elko, NV. (Aug).

Crowther, D., Vila, J. & Cannon, J. (2007). Reading, Writing, Listening, and Speaking: Incorporating Language Skills in Science for ELL. A 5 day workshop for the Southern Nevada Regional Professional Development Program (SRPDP). Las Vegas, NV. June

Crowther, D., Cannon, J. & Loftin, L. (2007). Hands-on Inquiry and Physical Science. A 2 day workshop for the Southern Nevada Regional Professional Development Program (SRPDP). Caliente, NV. June

Crowther, D. (2007). Science, English Language Learners, and Nevada. A Keynote presentation for the Northeastern Regional Professional Development Program (NERPDP) conference on Math and Science Education. Elko, NV. (April).

Crowther, D., Cannon, J. & Loftin, L. (2007). Earth Science and Hands-on Inquiry Instruction in Nevada. A Keynote presentation for the Northeastern Regional Professional Development Program (NERPDP) conference on Math and Science Education. Elko, NV. (April).

*Crowther, D. & Cannon, J. (2005). Edible Earth Movements. A presentation for the Nevada State Science Teachers Association (NSSTA). Bishop Monoque H.S., Reno, NV. (October).

Cannon, J. & Crowther, D. (2005). The State of Science Education: A Keynote Address for the Nevada State Science Teachers Association (NSSTA). Bishop Monoque H.S., Reno, NV. (October).

Loftin, L. Crowther, D. & Cannon, J. (2005). Silly Sounds & Waves. A presentation for the 12th Annual Finish Fresh, Washoe County School District. Billingshurst Middle School. April 30th.

Crowther, D., & Cannon J. (2004). Elementary Physical Science. 5 Days Professional Development at the Clark County Summer Institute. Las Vegas, NV. (June 14 - 19).

Crowther, D. & Cannon, J. (2004). Elementary Earth Science. 2 days Professional Development for the Southern Professional Development Program & Clark County School District. Las Vegas, NV. (Nov. 15 - 17).

Crowther, D. & Cannon, J. (2004). Hands-on Integrated Science. Wells, NV. January 15-16.

Crowther, D., & Cannon J. (2003). Elementary Physical Science. Two day workshop at the Clark County Summer Institute. Las Vegas, NV. (June).

*Crowther, D., Cannon, J., & Loftin, L. (2002). Hot Air Balloons & Aerostatics. Nevada State Science Teachers Association (NSSTA). (October).

*Crowther, D., Cannon, J., & Loftin, L. (2002). Tie Dye Science. Nevada State Science Teachers Association (NSSTA). (October).

*Crowther, D., Cannon, J., & Loftin, L. (2002). Physics R. Phun. Nevada State Science Teachers Association (NSSTA). (October).

*Crowther, D., Gubanich., & Willden, J. (2002). Classify, Identify, and Multiply. Nevada State Science Teachers Association (NSSTA). (October).

Crowther, D. & Cannon, J. (2002). More Elementary Physical Science. Full day professional development workshop for Wells, NV. Teachers. (September).

Crowther, D., Cannon J., Loftin, L., Willden, J. & Wangsgard, N. (2002). Elementary Science Methods. Two day workshop at the Clark County Summer Institute. Las Vegas, NV. (June).

Crowther, D. & Cannon, J. (2002). Elementary Physical Science. Full day professional development workshop for Wells, NV. Teachers. (April).

Cannon, J., Loftin, L., Crowther, D., & Gubanich, A. (2001). Nevada Operation Physical Science. Half day workshop at the Clark County Summer Institute. Las Vegas, NV. (June).

Crowther, D., Cannon, J., Gubanich, A., Loftin, L. (2001). Nevada Operation Chemistry. Half day workshop at the Clark County Summer Institute. Las Vegas, NV. (June).

Gubanich, A., Crowther, D., Cannon, J., & Loftin, L. (2001) Nevada Operation Biology. Half day workshop at the Clark County Summer Institute. Las Vegas, NV. (June).

*Crowther, D., Cannon, J., Loftin, L., Gubanich, A., & Zike, D. (2001). Tie Dye Science. Nevada State Science Teachers Association (NSSTA). Las Vegas, NV. October.

*Crowther, D., Cannon, J., Loftin, L. (2000). Nevada Operation Chemistry: Tie Dye Science. Nevada State Science Teachers Association (NSSTA). Lovelock, NV. October.

*Crowther, D., Cannon, J., Loftin, L. (2000). Nevada Operation Chemistry: Polymers. Nevada State Science Teachers Association (NSSTA). Lovelock, NV. October.

*Crowther, David T, & Kimbal, Dana Sue (2000). Nevada Operation Chemistry & Mining. Nevada Mining Association (NMA) Minerals Conference. Las Vegas, Nevada. (April)

*Crowther, David T.; Cannon, John R.; & Loftin, Louis. (1999). Wild and wacky polymers: Nevada operation chemistry in Nevada. Nevada State Science Teachers Association (NSSTA), Tonopah, NV. (April).

*Crowther, David T.; Cannon, John R.; & Loftin, Louis. (1999). Physics R Phun - A Day at the Races!! Nevada State Science Teachers Association (NSSTA), Tonopah, NV. (April).

*Loftin, Louis, Cannon, John R. & Crowther, David T. (1999). Tie Dye Science: Hydrogen Bonding in practice. Nevada State Science Teachers Association (NSSTA), Tonopah, NV. (April).

*Crowther, D., & Cannon, J. (1999). A Nevada Standard: The Science Education Standards. A Keynote Address for the Nevada State Science Teachers Association (NSSTA). Nevada State Science Teachers Association (NSSTA), Tonopah, NV. (April).

Crowther, David T.; Cannon, John R.; & Loftin, Louis. (1999). Wild and wacky polymers: Nevada operation chemistry in Nevada. Elko Science Symposium. Elko, NV. (February).

Crowther, David T.; Cannon, John R.; & Loftin, Louis. (1999). Physics R Phun - A Day at the Races!!

Elko Science Symposium. Elko, NV. (February).

Cannon, John R.; Crowther, David T.; & Loftin, Louis. (1999). Constructing Ice Cream: Constructivism & Ice cream. Elko Science Symposium. Elko, NV. (February).

Loftin, Louis, Cannon, John R. & Crowther, David T. (1999). Tie Dye Science: Hydrogen Bonding in practice. Elko Science Symposium. Elko, NV. (February).

*Crowther, D. T. (1999). Nevada Operation Chemistry. *Nevada Minerals Education Conference*. Nevada Mining Association (NMA). Winnemucca, Nevada. July.

Crowther, David T.; Cannon, John R.; & Loftin, Louis. (1998). Wild and wacky polymers: Nevada operation chemistry in Nevada. Elko Science Symposium. Elko, NV. (February).

Cannon, John R.; Crowther, David T.; & Loftin, Louis. (1998). Constructing Ice Cream: Constructivism & Ice cream. Elko Science Symposium. Elko, NV. (February).

Loftin, Louis, Cannon, John R. & Crowther, David T. (1998). Tie Dye Science: Hydrogen Bonding in practice. Elko Science Symposium. Elko, NV. (February).

Crowther, David T. & Cannon, John R. (1998). Physics R. Phun. Lovelock Science Symposium. Lovelock, NV. (March).

Crowther, David T., Cannon, John R., & Loftin, Lou (1998). Wild & Wacky Polymers. Elko Science Symposium. Elko, NV. April.

Cannon, J., Crowther, D., & Loftin, L. (1998). Constructing Ice Cream. Elko Science Symposium. Elko, NV. April.

Loftin, L., Cannon, J., & Crowther, D. (1998). Tie dye Science. Elko Science Symposium. Elko, NV. April.

Crowther, David T., & Cannon, John R. (1998) Physics R Phun. Lovelock Science Symposium. Lovelock, NV. March.

*Crowther, David T. & Gubanic, Alan. (1997) Energy and Bio-diversity in Nevada Trophic Pyramids. Nevada Science Technology Engineering Math Alliance (NSTEMA) Winter Conference.

*Crowther, David T. & Cannon, John R. (1997) Polymers – Nevada’s Operation Chemistry. Nevada State Science Teachers Association (NSSTA) April.

*Crowther, David T.; Cannon, John R.; Ochs, George; Price, Elisabeth. (1997) *Shake it up Baby* Nevada Science Technology Engineering Math Alliance (NSTEMA) Winter Conference- February.

*Crowther, David T.; Cannon, John R.; Ochs, George; Price, Elisabeth. (1997) *Polymers - Operation Chemistry*. Nevada Science Technology Engineering Math Alliance (NSTEMA) Winter Conference- February.

Service

Professional Organizations/Positions on National / International & Regional Committees:

Member American Educational Research Association (AERA) 2005 - present.

Member of Teachers of English to Students of Other Languages (TESOL) 1999 - Present.

Member of National Center for Science Education (NCSE). 1996 - Present

Member of National Science Teachers Association (NSTA). 1982 - Present

- International Task Force (2010 –2012)
- Served on the Toyota Tapestry Grant Review Committee (2007 – 2009)
- Served on Children’s Book Council / NSTA Outstanding Science Trade Book Selection Committee (2003 – 2007) (Chair in 04 &06)
- Served on NSTA Council / Board as CESI liaison (2001 – 2003)
- Program Chair of the Reno 2003 Regional Convention
- Program Chair of the Reno 1999 Regional Convention
- Served on the NSTA Supervision Committee through July 1998.

Member of National Association of Biology Teachers (NABT). 1994 - Present

- Served on the NABT Advisory Committee and Elementary publications committee through December 1998.

Member of the Council for Elementary Science International (CESI). 1993 - Present

- President Elect for 1999 - 2001, President 2001 - 2003, Retiring Pres. 2003 - 2005
- Editor *CESI Science* (2000 -2006)
- Chair of the Affiliates Committee (2001)
- Board Member through (1999 –2000)

Member of Association of Supervision and Curriculum Development (ASCD). 1989 - Present

Member of Phi Delta Kappa (PDK). 1995 - Present

Member of the National Association of Research in Science Teaching (NARST) 1996 - Present

- Served on the Awards Committee 2000 – 2002
- Served as Science Education reviewer for NARST (2000 – 2003)

Member of the Association for Science Teacher Education (ASTE). 1996 -Present

- Serving on Elections Committee 2005 – 2007
- Member Publications Committee 2004 - 2006
- Served on the Editorial Committee through 1999 - 2001
- Served on the Electronics and technology committee through 2001 – 2002
- Reviewed proposals for national conferences 1996 – 2000, 2005 – 2008.

Member of the Educational Committee for the Nevada Mining Association (NMA) 1998 - Present

Board Member of Nevada Science Technology Engineering and Math Association (NSTEMA) 1996 - Present

Board Member of the Nevada Science Project (NSP) 1996 B 1999

National Consultation Work with The National Faculty:

Physical Science Pandemonium: Chemistry and physics for the elementary & middle school curriculum. (2000). Summer Institute for the National Faculty at Northeast Louisiana University (NLU) Monroe, Louisiana. Aug 9 - 17, 2000.

pHestival of pHysical Science (1999) Summer Institute for the National Faculty at Northeast Louisiana University (NLU) Monroe, Louisiana. July 19 - Aug 2, 1999.

pHestival of pPhysical Science (1998) Summer Institute for the National Faculty at Southeast Missouri State University, Cape Girardeau, MO. July 17 - Aug 1, 1998.

Fantastic Physical Science (1998). Workshop for the National Faculty in Lake Providence, LA. (April)

Fantastic Physical Science (1998). Workshop for the National Faculty in Rayville, LA. (February)

Kitchen Chemistry/ Biology (1997). Workshop for the National Faculty In Lake Village, Arkansas. (March)

Kitchen Chemistry/ Biology (1996) Workshop for Middle Level and High School Teachers in Harrisburg, IL. Work done for the National Faculty (October).

Kitchen Chemistry (1996) Workshop for Elementary Teachers in Murphysboro IL. Work done for the National Faculty (May).

Recent Service Activities

National Service:

Member of the International Task Force for the National Science Teachers Association (NSTA) (2010–2012) Duties include writing position statement and guidelines for international cooperation and collaboration with NSTA.

Member Toyota Tapestry Grant Review committee for the National Science Teachers Association (2007 – 2009). Duties include reviewing numerous grant proposals for the awards, mentoring grant writers through application process, and attending the ceremony for awards.

Member of the Elections committee for the Association for Science Teacher Education (2005 – 2007). Duties include recruiting members to run for offices, reviewing and rating candidates for offices, reviewing ballots, and communicating election results for the organization.

I am a member & Chair of the National Science Teachers Association (NSTA) and Children's Book Council (CBC) Outstanding Science Trade Book Selection Committee which involves reading over 250 - 300 nonfiction Children science books (K-12) annually and choosing the top 40 for an award. This took numerous hours of reading and critiquing non fiction science books. Along with the coordination of the New York meeting and writing up of the books for science education journals. (Member 2003 – 2007; Chair 2004 & 2006).

President *Council for Elementary Science International* (CESI). This is an 80 year old organization with roughly 1200 member internationally. My term is 2 years president elect, 2 years president, and 2 years retiring president (1999 - 2005). This also is a *National Science Teachers Association* (NSTA) Board Position as an affiliate member. Duties involve running all elections for CESI, organizing all conferences (both CESI and NSTA sessions, breakfasts, luncheons etc. along with coordinating speakers and programs). Attending 4 conferences per year and 2 board meetings. Also, making decisions with regards to the association with new, current and sustaining affiliate status of other organizations seeking affiliation with CESI.

Member of Publications Committee for Association for the Education of Teachers of Science (AETS) (2004–2006)

Board Member for Council for Elementary Science International (CESI) Term from 1999 - 2000. Duties include attending 2 board meetings per year, carrying out duties of the organization and heading up the

publications portion of the organization.

National Science Teachers Association (NSTA) - A member of the Council / Board. Duties involve attending bi-annual NSTA board meetings (Arlington, VA.) as well as committee responsibilities working with the Elementary Science Liason and CESI (2000 - 2003).

I am a visiting scholar for The National Faculty (TNF). Duties include doing presentations and workshops in the Delta Region of the United States (2 workshops in the past year - refer to presentations section) along with general consulting responsibilities for the organization. (1995 – 2001).

National Association of Biology Teachers (NABT) - A member of the publications committee. Duties include reviewing all official statements and publications issued from the association. (Except the Journal American Biology Teahcer)(1996-1999)

National Science Teachers Association (NSTA) - A member of the supervision and curriculum committee. Duties involve creating and editing formal stands taken by the association with regards to supervision and curriculum (reform) efforts. (1996-1999)

Nevada:

Member of the Nevada State Science Teachers Association (NSSTA) (1996 – present). Attend annual state conferences, help preparations when in Northern Nevada, and work with local science teacher organization.

Member of the Washoe County Science Teachers Association (WCSTA). (1999 – present). Participate and attend bi-annual meetings.

Board member and treasurer for the Northern Nevada Association Multicultural Education (NAME). Kept books for organization (2003 – 2005)

I am a board member of the Nevada Science Technology Engineering Math Association (NSTEMA). Duties include planning of the bi-annual conferences, teaching workshop sessions, and executive planning for the organization. (1996 – 2001)

I am a board member of the Nevada Science Project (NSP). Duties include attending board meetings and participation in the project. (199 – 1999)

A member of the Nevada Math/Science Collaborative Task Force. This committee was created by the Associate Dean to form state wide collaborations in math, science, and technology and performing outreaches to rural Nevada.

I am a member of the Education Committee of the Nevada Mining Association (NMA). Duties include representing the needs of UNR and the College of Education at the Monthly meetings and helping to create programs and resources for teachers. Since Fall 1998.

1997-1998 I served on the Nevada Science Frameworks Committee. Duties include creating and editing the new Nevada Science Frameworks K-12 document.

1997-1998 I served on the Nevada Science Frameworks Executive Committee. Duties include helping to plan the frameworks meetings, heading the Life Science section for the frameworks, and executive editing to the frameworks as a whole.

University of Nevada – Reno

Senator: University Senate (2006-2009)

Member Salaries & Budget Committee (2008 – 2010)

Member of Sustainability Committee (2008 – 2009)

Member – Ad Hoc committee for core revisions in math and science (2004 – 2007)

UNR / College of Education:

- _ Master's Program Committee (2011 – 2012)
- _ Program Coordinator (Elementary Education) (2009 – 2011)
- _ Undergraduate Program Committee (2009 – 2011)
- _ Search Committee for Director of Raggio STEM center (2007)
- _ Search Committee for Social Studies faculty member (2006)
- _ College of Education Personnel Committee (2006 – 2007; 2008-2009)
- _ Search Committee for Math Faculty (2006)
- _ College of Education TECC Committee (2003 – 2005)
- Search Committee for Math Faculty member (2005)
- Search Committee for Department Chair (2005)
- _ College of Education Faculty Senator (2000 - 2002)

- _ C&I curriculum Committee (1997 - 1999, 1999 - 2001)
- _ Dean's Advisory Committee for Math, Science, and Technology Center (1996-1999)
- _ Committee for Distinguished Intern Award (1997-1999)
- _ Search Committee for Director of Field services (1998)
- _ (Ad Hoc) Early childhood W/ Demchek (1997-1998)
- Engineering Van - with Engineering Department (ongoing)
- Nevada Operation Series (Chemistry, Physics & NESSI) (Ongoing)

Outreach to other colleges at UNR:

- Presentation for UNR Engineering department – lecture in Chemical Engineering (2002)
- _ Presented Science Activities for the Deans Young Scholar program / conference (Fall, 2000)
- _ Negotiating with Biology and Chemistry for a new collaborative course for El. Ed. Majors. (Ongoing)
- _ Science Partners Course - UNR Med School - Included teaching 2 seminars and field placements for 20 students.(Ongoing Physical Science - with Physics and Engineering (2000 B 2003)

Washoe County School District:

Note: I have only listed some service opportunities within WCSD. I am in the schools about 3 times per week volunteering and doing various activities.

- Professional Development, Inquiry Science Presentation, Smithridge Elementary (Oct. 2011)
- Professional Development, STEM Coordination, Dillworth STEM Academy (Middle School) (2011)
- Science Professional Development & Practicum Bailey Charter Elementary (2009-Current)
- Science Professional Development & Practicum Hunter Lake Elementary (2008)
- Science Professional Development & Practicum Veteran's Elementary (2008)
- Science Fair Hunter Lake Elementary (2007)
- Science Assemblies Hunter Lake Elementary (2007)
- Finish Fresh Presentation WCSD (2007)
- Earth Science Lab rotations at Billingshurst Middle School (2007)
- Science Fair Assemblies for Agnes Risley Elementary (2006)
- Science Fair for Rollan Melton Elementary School (2006)
- Finish Fresh Presentation WCSD (2006)
- Science Fair Hunter Lake Elementary (2006)
- Science Assemblies Hunter Lake Elementary (2006)
- Family Science Night Veterans Elementary School (2005)
- Presentation for Finish Fresh WCSD (2005)
- Science Fair Rollan Melton Elementary (2005)
- Science Fair for Lena Juniper Elementary School (2005)
- Family Science Night Veterans Elementary School (2004)
- Science Festival / Fair Veterans Elementary School (2004)
- Chemistry and Tie Dye presentation Carson High School (2004)
- Presentation for Start Fresh WCSD (2004)
- Science Fair Rollan Melton Elementary School (2004)
- Family Science Night Veterans Elementary School (2003)
- Science Festival / Fair Veterans Elementary School (2003)
- Science Fair / Festival Assemblies at Jesse Beck and Rita Cannon Elem. (2003)
- Finish Fresh presentation for WCSD (2003)
- Science Fair / Assemblies at Jesse Beck and Rita Cannon Elem. (2002)
- Washoe County School District – Finish Fresh presentations (2002)
- Rollan Melton Elementary School 5th taught grade science rotation (2002)
- Family Science Night at Glenn Duncan Elementary school (2002)
- Family Science Night at Veterans Elementary School (2002)

Family Science Night at Veterans Elementary School (October 2000)
 Family Science Night at Westergard Elementary School (October 2000)
 Washoe County School District - Reno Latchkey program - Provided a full day of training to WCS D Latchkey workers in hands-on science. (April 2000)
 Katherine Dunn Elementary School Science Fair (April 2000)
 Mt Rose Elementary School Science Fair (April 2000)
 Judged Science Fair at Lena Juniper Elementary (March 2000)
 Judged Science Fair at Rita Cannon Elementary (March 2000)
 Family Science Night Sara Winnemucca Elementary (October 1999)
 Family Science Night: Mount Rose Elementary (October 1999)
 Science Committee for Sara Winnemucca Elementary School (1996 - 1999)
 Tie dye lab with Early Learning Center (ELC) (Spring of 1999).
 Collaboration with ELC on several science units involved with my methods class. (Ongoing)
 Katherine Dunn Elementary Science Festival. Organized and carried out the science festival (March, 1999)
 Smithridge Elementary School Assemblies (2) in preparation for Science Fair (January, 1999)
 Rita Cannon Elementary School Assemblies (2) in preparation for Science Fair (December, 1998)
 Katherine Dunn Elementary Assemblies (6) in preparation for Science Fair (March, 1998)
 Sara Winnemucca Elementary Assemblies (7) in preparation for Science Fair (March, 1998)
 Katherine Dunn Elementary Science Fair (organization and execution) (March, 1998)
 Family Science Night Katherine Dunn Elementary. (October, 1998)
 Family Science Night Sara Winnemucca Elementary (October 1998)
 Science Committee for Sara Winnemucca Elementary School (1996 - 1999)
 Judged Science Fair at Lena Juniper Elementary (March 1998)
 Taught Frog lesson & Tie dye lab with Early Learning Center (ELC) (Spring of 1998).
 Collaboration with ELC on several science units involved with my methods class. (Ongoing)
 Rita Cannan Elementary Assemblies (2) in preparation for Science Fair (December 1998)
 Co-supervised and ran sessions for the Science and Math for all Reasons Conference, Lois Allen Elementary School. March 15, 1997
 Polymer workshop for Washoe County Teacher Institute Day. Reno High School (March 1997)
 Katherine Dunn Elementary Science Festival. Organization, execution & evaluation. (Marh 1997)
 Judged Science fair at Lena Juniper elementary school (March 1997)
 Taught States of matter Science Unit to 2nd graders at Sarrah Winnemucca Elementary School (February 1997)
 6 Assemblies for science fair Katherine Dunn Elementary. (February 1997)
 Volunteer every 4th Thursday AM. in Mrs. Kelhetter=s 2nd Grade Classroom. (August 1996 - January 1997)
 Science lessons on frogs (including making a terrarium and field trip) and lessons on complete metamorphosis with butterflies (activity with paper plates). Early Learning Center, UNR. (Sept - Oct. >96)
 Earth Sandwich - a lesson on the layers and structure of the Earth. Sarah Winnemucca Elementary School - Second grades Contact: Kelhetter. (October >96)
 Collaboration with ELC on several science units involved with my methods class.(August 1996 - Present)

Lincoln Public School District: (1993-1996)

Sheridan Elementary School Parent Teacher Organization (PTO) Science Specialist. Responsibilities include: Annual science fair coordination, assemblies to each grade level on scientific process and science fair projects/guidelines, and fund raising for science fair and school science equipment. (August '93 to July >96)
 Family Science Night Bi-Annually for Sheridan Elementary School. (August '93 to July >96)
 Sunday with a Scientist (Family Science Night) Bi-Annually for Beattie Elementary school. (August '93 to July >96)
 Consultant for Beattie Elementary Science Club: Responsible for one activity per month. (August '93 to

July >96)

Numerous science assemblies and science fair involvement throughout the community. (August '93 to July >96)

Annual Evaluations

This page shows my University annual evaluations since I have been at the University of Nevada, Reno. Note that the highest ranking is an “Excellent” followed by a commendable, satisfactory, and the lowest score is an unsatisfactory rating. I am including copies of my annual teaching evaluations for my entire time that I have been at the University of Nevada. I am proud to say that each and every year I have received the rating of “Excellent” in teaching and service. In every year but one, I received an “Excellent” rating with the exception of 2002 where I received a “Commendable” rating.

Year	Teaching	Research	Service	Overall
1996-97	Excellent	Excellent	Excellent	Excellent
1997-98	Excellent	Excellent	Excellent	Excellent
1998-99	Excellent	Excellent	Excellent	Excellent
1999-2000	Excellent	Excellent	Excellent	Excellent
2000-01	Excellent	Excellent	Excellent	Excellent
2001-02	Excellent	Commendable	Excellent	Excellent
2002-03	Excellent	Excellent	Excellent	Excellent
2003-04	Excellent	Excellent	Excellent	Excellent
2004-05	Excellent	Excellent	Excellent	Excellent
2005-06	Excellent	Excellent	Excellent	Excellent
2006-07	Excellent	Excellent	Excellent	Excellent
2007-08	Excellent	Excellent	Excellent	Excellent
2008-2009	Excellent	Excellent	Excellent	Excellent
2009-2010	Excellent	Excellent	Excellent	Excellent
2010-2011	Excellent	Excellent	Excellent	Excellent
2011-2012				